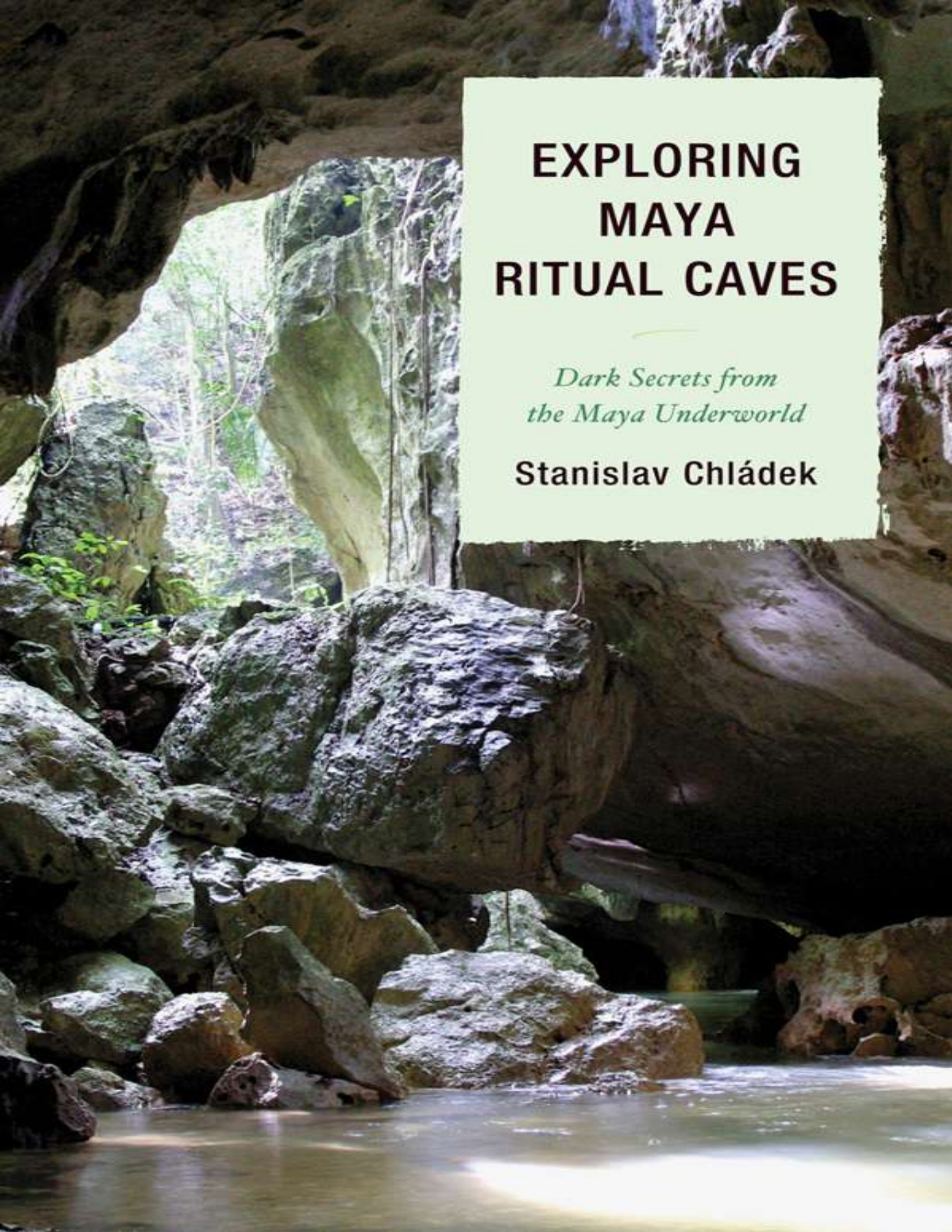
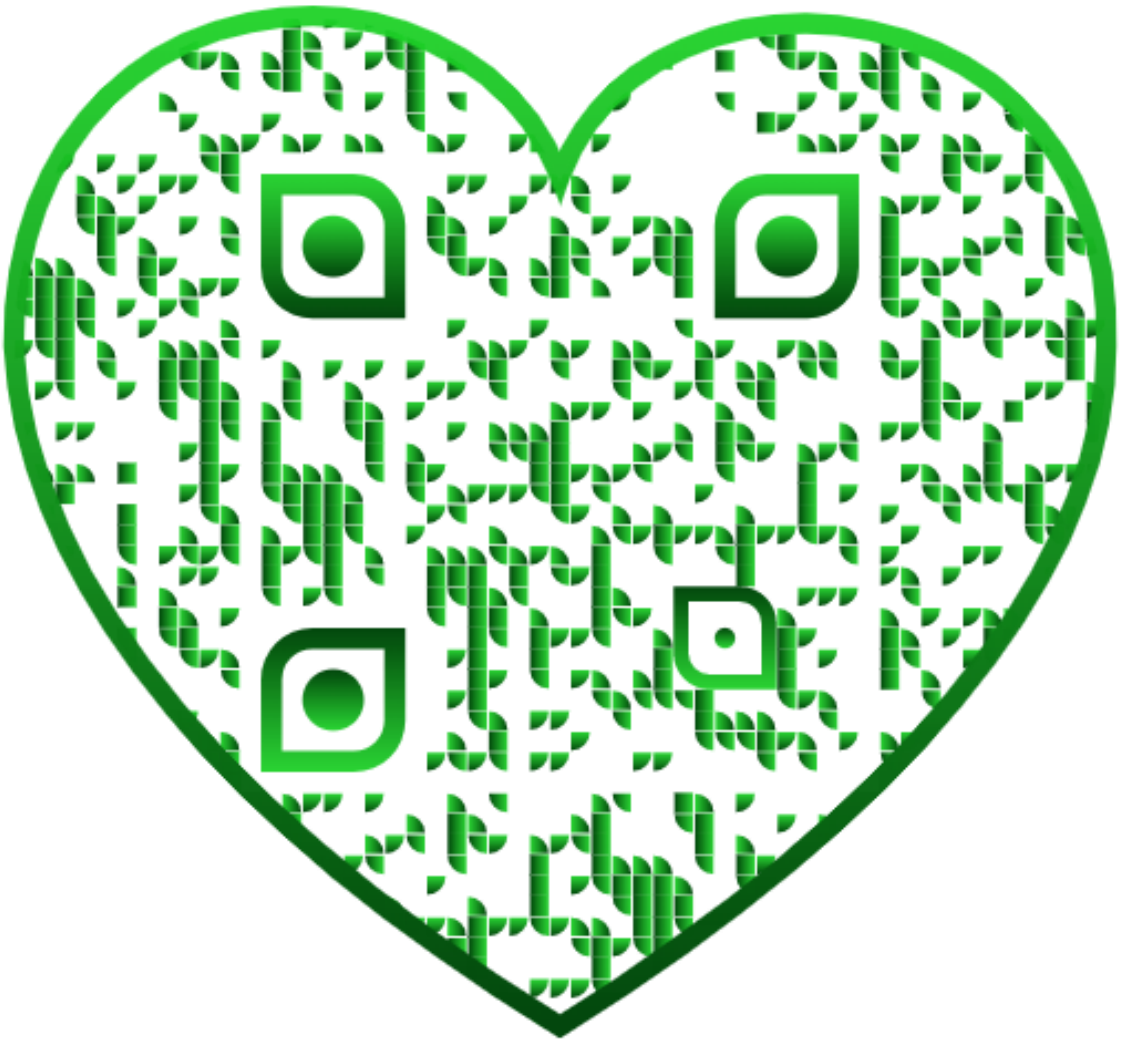


EXPLORING MAYA RITUAL CAVES

Dark Secrets from the Maya Underworld

Stanislav Chládek



EXPLORING MAYA RITUAL CAVES

Dark Secrets from the Maya Underworld

Stanislav Chládek

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Introduction

> It lay before us like a shattered bark in the midst of the ocean, her masts gone, her name effaced, her crew perished, and none to tell whence she came, to whom she belonged, how long on her voyage, or what caused her destruction. . . .
>
> All was mystery, dark, impenetrable mystery.
>
> John Lloyd Stephens, *Incidents of Travel in Central America, Chiapas and Yucatan,* 1839

These are the words of American explorer John Lloyd Stephens, who introduced the ancient Maya to the modern world, after he beheld the ruins of Copan in today's Honduras. These words rang in my ears as I looked at the collection of Maya vases and incense burners amid the stalactites in the depth of Balankanche Cave in Mexican Yucatán in 2000. This was my first visit to any Maya ritual cave, and the questions rose like the surrounding stalagmites. What caused the Maya to bring these offerings into the dark depths of a humid cave to worship there? The questions rang even more true as, years later, I stared at piles of human skeletons lying in the reddish mud in the depth of Midnight Terror Cave in Belize. What happened here? Was this cave a burial ground or, more likely, did the skeletons belong to sacrificial victims? What event precipitated this terrible, massive sacrifice more than a thousand years ago?

My interest in Maya caves started innocently enough. I was on a family vacation in Tulum in 2000 when my younger daughter, Petra, fresh from language school in Lago Atitlan, Guatemala, brought me the book *Maya Cosmos* by David Freidel, Linda Schele, and Joy Parker. I started to read and couldn't stop, much to the chagrin of my vacationing family. I was hooked and left wanting to explore these mysterious Maya caves to see how they and their contents related to Maya myths.

Shortly after, I started to travel to Mesoamerica and explore Maya caves whenever and wherever I could find them. There was a sense of adventure and the exotic in my journeys. In the beginning I had no idea where my quest would lead. Now ten years later, after spending endless hours in many dark and mysterious caverns, I can summarize my impressions: through this effort

I began to understand Maya beliefs in life, death, afterlife, and their mysterious underworld.

This book is not about the splendid achievements of the Maya civilization, including its great cities with their pyramids, palaces, and ball courts; Maya accomplishments in astronomy, mathematics, and hieroglyphic writings; or even Maya history. It is not about what casual visitors from around the world see in Central America. It is about the other mysterious world of the Maya: an underground world of caves and of cenotes, which are deep natural wells carved into limestone bedrock.

The book is divided into three parts. In chapter 1, I start with a broad overview of the Maya as context to the heart of the book and its discussion of Maya caves. This chapter offers a short historical overview and describes the Maya underworld and the Maya creation story of Popol Vuh. Chapter 2 is devoted to many facets of Maya caves, from background geology and cave cult and mythology to the sacrifices conducted there and the art and artifacts of these caves up until today. Chapter 3 details my cave explorations in Mexico, Guatemala, and Belize. A chronology of important dates in Maya history, and a glossary of Mayan and other terms, are offered to help readers unfamiliar with the subject. A biography provides not only sources used for my research but also general books on the Maya that should be of interest.

Chronology

1500–1000 BC	Early Preclassic Period
1000–300 BC	Middle Preclassic Period
300 BC to AD 250	Late Preclassic Period
AD 250–600	Early Classic Period
AD 600–800	Late Classic Period
AD 800–909	Terminal Classic Period
AD 909–1200	Early Postclassic Period
AD 1200–1500	Late Postclassic Period
AD 1517–1518	Contact Period with Spanish
AD 1524–c. 1800	Colonial Period
AD 1562–1579	Diego de Landa, Spanish bishop, in Yucatán
AD 1697	Fall of last Maya king, in Tayasal, Petén, Guatemala

1

The Maya and Their World

The Maya world embraces the southern Mexican states of Chiapas, Tabasco, Campeche, Yucatán, and Quintana Roo (the last three on the Yucatán Peninsula); the countries of Belize, Guatemala, and El Salvador; and the western part of Honduras. This area is still home to about seven million original inhabitants, the Maya. Because of differences in altitude, quality of soil, and rainfall quantity, the region is often divided into three zones: the Pacific Piedmont, a volcanic Highlands (the *Cordilleras*, or crest of the continent), and a sometimes undulating, but generally flat, Lowlands. It is namely in the Lowlands where the Maya civilization achieved brilliance (figure 1.1).

More than two thousand years ago the advanced Maya civilization was born in the rain forests of Central America. In the jungle grew splendid, gleaming cities with pyramid-temples, royal palaces, houses of nobles, ball courts, and plazas connected with long, wide, paved, elevated roads called *sak beo'ob*.[1] The cities were embellished with sculptures, carved *stelae* (standing stones) proclaiming the glory of divine kings and their affiliation with gods and ancestors. Much of the Maya commerce was waterborne; Maya traders paddled dugout canoes on river trails lacing the region, while on the sea, the Maya used much larger sea-going canoes. There were many small Maya city-states, each relatively independent, and ruled by an *ahaw* (king) who claimed divine ancestry. The relationships between these various kingdoms were often antagonistic, and they were often at war.

Figure 1.1. Map of the Maya area with principal cities and caves.

Maya glyphic writing was the most developed in the ancient Americas. Their scribes recorded on stones great stories of creation, astronomical observations, mythology, and important events from the lives of their kings. Many inscriptions are preserved on exquisite ceramic pieces and also appeared in Maya codices, or folding books, made from fig-bark paper coated with a layer of stucco. Three codices that survived the ravages of time and humidity and the Spanish conquest are now preserved in European museums; they all come from the postclassic period (AD 909–1500).

The Maya were great mathematicians (they discovered the concept of zero) and accomplished astronomers, and they had considerable medical knowledge. They also developed a very sophisticated calendar. Two calendar cycles, *Tzolk'in* and *Haab*, ran simultaneously. *Tzolk'in* had 260 days, representing the intermeshing sequence of the numbers 1 through 13, with 20 named days. This was the Maya sacred cycle, and it is still sometimes used in the Highlands. The *Haab* cycle was composed of 365 days, the length of a tropical year. It was composed of 18 named months of 20 days and 5 much-dreaded unlucky days at the end. Both cycles were anchored to the Long Count, which started on August 13, 3114 BC, the Maya creation date (according to the Gregorian calendar). The Long Count was based on cycles, allowing the Maya to count incredibly long time intervals.

Maya civilization was based on agriculture. The most important plant for all Mesoamerican civilizations was maize (corn). Maize was so important to the Maya that they believed humans were created from it. Maya farmers managed to sustain highly productive agriculture in the Lowland region, which is arguably not suitable for large-scale production. It took the Maya quite a bit of ingenuity to develop a system of agriculture to feed their dense population. Toward the end of the ninth century, the population density approached that of the Netherlands today.

Also toward the end of the ninth century, the Maya started abandoning their southern Lowland cities. The northern Lowland cities stayed populated longer, but even those became ghost towns with the beginning of the new millennium. This is known as the famous Maya collapse, and it was probably the most profound failure of a civilization in the history of mankind. Perhaps the most important factor in this failure was a collapse of agriculture, caused by explosive population growth. Another factor possibly contributing to the collapse was drought, which hit the Lowlands at about the same time.

Political turmoil between warring Maya polities, and a loss of the authority of divine kings, probably played a role in the collapse as well. These probable causes, however, do not explain why the northern cities survived longer than the southern ones, as their local environmental conditions were even more precarious than those of their southern neighbors.

Then came the Spanish conquest, forced Christianization, and turmoil in the newly independent Central American states. The twentieth century brought even more trouble for the Maya in the form of civil war, genocide, revolution, and military dictatorships. Still they endured, and today the modern Maya are proud of their ancient heritage, while many still maintain a bond with their ancestors and spirits.

The Maya Underworld

The Maya believed the universe was made of three layers: an upper world (heaven), a middle world (the human world), and an underworld. Belief in a tiered universe is common to shamanistic peoples around the world. According to anthropologist David Lewis-Williams, belief in the underworld has its origin in altered states of consciousness resulting from a trance stage. A frequent model of the human world, often depicted in Maya art, was that of a giant turtle, or other saurian, floating in the sea. The water formed a boundary with the underworld. In other words, the earth was a thin interface (a floating disk) between a watery depth (the underworld) and the expanse of heaven. The *ceiba*, or World Tree, standing on the world's central axis, united the Maya universe. Its roots reached the underworld, while its trunk stretched up from the earth to heaven (figure 1.2).

A limestone layer underlies a large part of the area inhabited by Maya. This karst topography is distinguished by the presence of caves, cenotes (sinkholes), and underground rivers (figure 1.3). Even today, visitors cannot help but be awed by this vast underground realm of caverns, cenotes, and underground rivers. Rivers disappear into enormous caverns. In caves and cenotes, ever-darkening tunnels lead downward into a world of no light, hidden chambers, astounding stalactites and stalagmites, and pools of water.

Figure 1.2. A ceiba, the World Tree of the Maya, reaching from the underworld to heaven.

Figure 1.3. Formations glistening with tiny calcite crystals in Crystal Cave, Cave Branch River area, western Belize. This cave, sometimes also called Mountain Cow Cave because of the tapir (mountain cow) bones found there, is a dry cave rich in ancient artifacts.

For the Maya, this hidden, dark, watery underground world had great religious significance; it was equated with the entry to their underworld, called in K'iche' Maya, *Xibalba* (Place of Fright).[2] The underworld's existence was of paramount importance to the Maya, being the basis of their cosmogony and rich mythology. The Maya had a complex relationship with the underworld, and their conception of it was quite different from the Christian concept of hell. Maya religious beliefs were permeated with belief in an afterlife, which could take place only after the dead passed through the trials of Xibalba, ruled by the Lords of the Underworld, *Xibalbans*. Ever-present death led the Maya to dedicate much of their ritual to this final confrontation with the underworld's lords and their own eventual rebirth.

The magical nine layers of the underworld were guarded by the Lords of the Underworld. Like the middle world, Xibalba had its own landscape and architecture, including temples and palaces, ruled by the Lords of

Underworld. The underworld locations, called houses, were meant to be caves. The underworld was considered a dark, watery realm, also termed Black Transformer, Black Hole, or Black Body of Water. On the spiritual level, Xibalba coexisted with the middle world and was entered by kings and other humans in an alternate state of consciousness. Xibalba was a miserable place of pestilence and putrefaction. Into this realm the dying sun descended at twilight to endure untold dangers during its nightly passage, until with good fortune it triumphed and rose reborn at dawn to begin its daily journey across the heavens. The Night Sun, journeying through Xibalba, was often depicted as a face of the Jaguar God of the Underworld, appearing on many Maya sculptures. Rulers could expect to ascend from the dreaded realm of the deceased, the underworld, to assume a divine, celestial afterlife, duplicating in some respect the pathway of the sun.

Inhabitants of Xibalba were numerous, varied, and terrifying. They included anthropomorphs, zoomorphs, and other animals and skeletal creatures of a most distasteful countenance. The Lords of the Underworld were evil gods of death and sacrifice, as their names show: One Death, Seven Death, Pus Master, Jaundice Master, Blood Gatherer, Trash Master, Stab Master, and so forth. Among the most important Xibalba gods was Chaak, god of rain and lighting. The most comprehensive sources of Maya underworld-god images are classic period ceramics, or funerary art placed in the graves of deceased noble persons. Vases often surrounded the dead bodies of kings, queens, or nobles with plates placed over their faces. Maya gods also often possessed multiple and changing aspects, with the characteristics of several deities fused in a single Maya god. This represents a fundamental problem in describing the Maya pantheon.

Xibalba inhabitants included many ghoulish creatures whose names are not known and whose mythological significance can’t be easily interpreted. Sometimes they are hybrids of several creatures that cannot be found in biology textbooks. These could be *wayob* (coessences) of living noble persons or beings from previous creations. There were evidently many more gods, demigods, and monsters in the Maya pantheon, including local variations.

Much of what we know about the Maya view of the underworld comes from the story of Popol Vuh, recorded from a K’iche’ Maya source by a sixteenth-century Spanish priest. It is important to realize that Popol Vuh is

not a post-conquest invention; it is the remainder of a corpus of classic or preclassic myths (most of which is now lost) that describes Maya confrontation with the malevolent powers of the underworld and eventual rebirth, a journey that all people have to take. It is the Maya creation story.

Popol Vuh and Creation

In Popol Vuh, the narrative begins before the last, or fourth creation, with a story of the first set of divine twins, One Hunahpu and Seven Hunahpu. They were passionate ball players, and the noise of their game disturbed the Lords of the Underworld, who sent owl messengers to summon the brothers to Xibalba. In the underworld, the Lords of the Underworld tricked the twins and sacrificed them, burying their corpses under the ball court.[3] The head of One Hunahpu was cut off and hung in the fork of a calabash tree. The daughter of one of the Lords of the Underworld, Blood Moon, came by and talked to the head of One Hunahpu. The severed head spit on her hand, and this miraculously impregnated her. When her father, Blood Gatherer, found out that she was pregnant, he wanted to sacrifice her by a heart extraction. Instead, she tricked him by substituting for her heart a red resin on the offering plate and ascended to the earth to the place where the mother of the sacrificed twins lived.[4]

Soon she gave birth to a second set of twins, called the Hero Twins, Hunahpu and Xbalanque. There lived also another set of twins, their stepbrothers, One Monkey and One Artisan. They were the children of One Hunahpu and his first wife, Bone Woman, who died before One Hunahpu and Seven Hunahpu journeyed to Xibalba. These latter twins hated Hunahpu and Xbalanque, who used tricks to turn them into monkeys. One Monkey and One Artisan later became patrons of scribes. Hunahpu and Xbalanque grew to boys and became accomplished hunters. In due time, they were called by the creator gods to combat the evil designs of the vainglorious bird Seven Macaw (Vucub Caquix) and his sons Zipacna and Earthquake, who symbolized chaos in the cosmos. The Hero Twins killed Seven Macaw and his sons.

This episode can be seen as a necessary step for organizing the world before the last creation. Later on, a rat showed Hunahpu and Xbalanque game equipment stored in the rafters of their father and uncle’s house. Hunahpu

and Xbalanque learned how to play the ball game and became accomplished players. Soon the noise of their play disturbed the Lords of the Underworld, like the play of their father and uncle. The Lords of the Underworld summoned them also to Xibalba. The Hero Twins descended to Xibalba via the same torturous route as their forefathers, down cliffs, through canyons of raging rivers, and finally crossing the River of Blood and the River of Pus to enter the underworld. The Lords of the Underworld subjected them to a series of tests in the Houses of Darkness, Knives, Cold, Jaguars, and Fire. In each of them the Hero Twins were supposed to be killed, but using tricks they always emerged alive.

In the Bat House, inhabited by the giant killer bats Camazotz with their razor sharp teeth, the Hero Twins hid inside their blowguns through the night. But when Hunahpu stuck out his head to see whether dawn was coming, a Killer Bat bit his head off, leaving his headless body inside the blowgun. Xbalangue went to play the ball game with the Xibalbans again, this time with his brother's head as the ball, but he was able to replace it with a pumpkin. After distracting the Lords of the Underworld, he was able to recover his brother's head and eventually bring him back to life.

Nevertheless, the Xibalbans eventually killed the Hero Twins, ground their bones, and dumped them into the River of the Underworld. After five days, the Twins were revived, looking like catfish with barbels. (In classic period Maya art, Hunahpu, apotheosized as the Sun God, often appears with catfish barbels on his cheeks.) They went back to Xibalba dressed as vagabonds and performed all sorts of miracles for the Lords of the Underworld, killing several creatures (and themselves) and bringing all back to life. When the Lords of the Underworld begged the Twins to do the same to them, the Twins obliged, but did not resuscitate them. The rulers of Xibalba were thus defeated, and the Twins dug out the body of their father and brought him back to life as the First Father, or Maize God. The resurrection of the Maize God set in motion a chain of events, which led to the creation of the present world and humanity. After accomplishing these acts, the Hero Twins ascended to the sky, becoming the sun and moon (or Venus). This apotheosis of the Hero Twins showed that human souls could survive the trial of the underworld and eventually join their deified ancestors. This appears to be the crux of Maya belief in resurrection and afterlife.

The K'iche' Maya settled in the Highlands of Guatemala at the beginning

of the thirteenth century. They surely knew of the foundation of Maya culture that preceded them. The Popol Vuh text was probably copied from ancient Maya codices, which no longer exist.

Figure 1.4. God L on the Vase of the Seven Gods (from the collection of the Art Institute of Chicago) presiding over other deities at the time of the creation (4 Ahaw 8 Kumk'u, August 13, 3114 BC), and sitting on a jaguar throne. He wears a muan bird (horned owl) headdress and smokes a cigar. Muan birds were also considered messengers from the underworld. The cross bone symbol on the vase also indicates that the scene took place in a cave (see figure 2.3). Six other gods, among them God G1 (of the Palenque Triad) and Jaguar Paddler, are assisting him. A similar scene can be observed on the Vase of the Eleven Gods—probably painted by the same artist—originally from the Naranjo area, Guatemala.

The classic period Maya of the Lowlands (AD 250–909) had a story of the origin of the cosmos very similar to Popol Vuh, but perhaps more elaborate. Our knowledge of it comes from deciphering Maya glyphs and studying imagery on classic period ceramics. The main protagonists, the Hero Twins (also called the Headband Twins), are often readily identifiable, especially on ceramics. Their glyphic names are Hun-Ahaw (or One-Ahaw) and Balam, god of number 9, and correspond to the Popol Vuh names of Hunahpu and

Xbalanque. One Hunahpu is now called Hun-Nal-Ye, or One Maize Revealed (First Father, or Maize God).

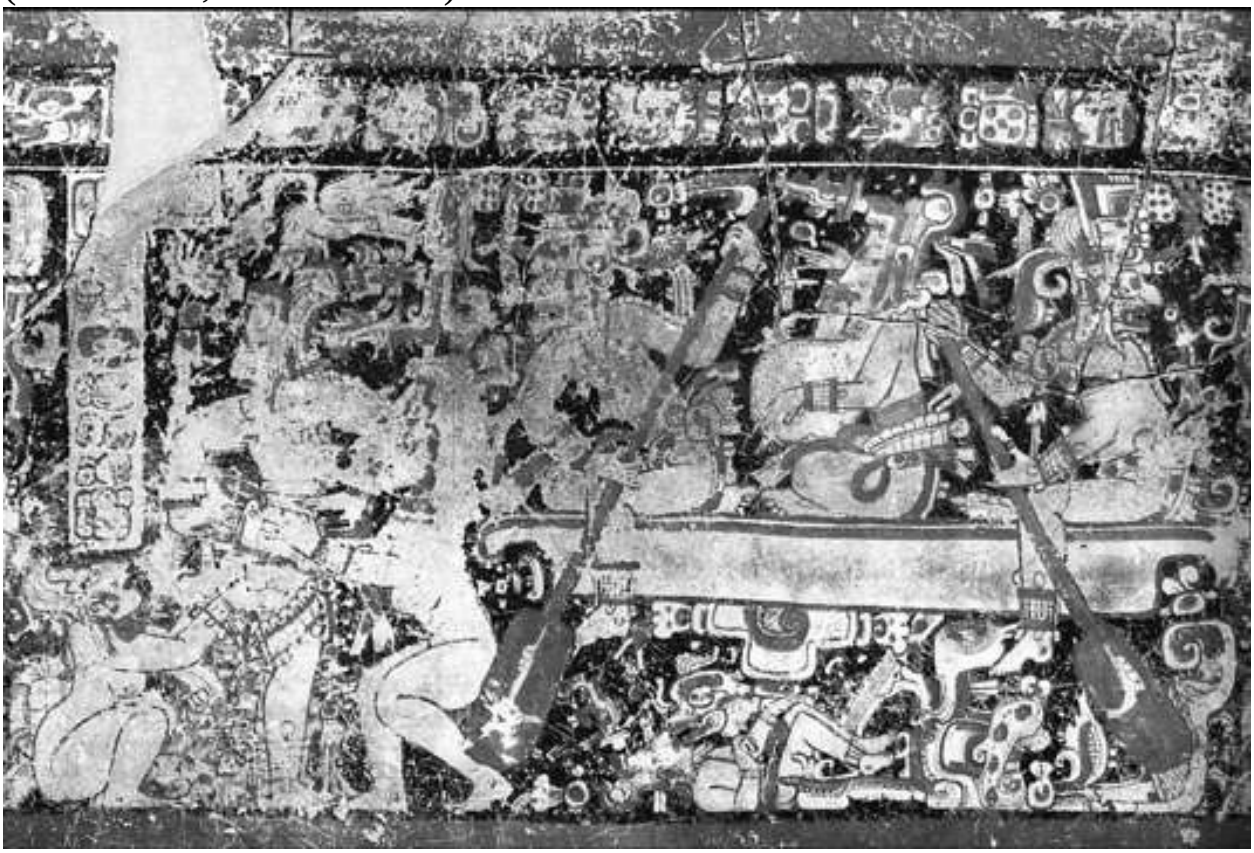

Figure 1.5. This pottery scene shows several stages of the resurrection of First Father (the Maize God). After his sacrifice in Xibalba, he is reborn from the mouth of a fish-snake monster (lower right), dressed with fine jade jewelry by two beautiful nude women (lower left), and transported to the place of resurrection (Orion Triangle) in a canoe by two Paddler gods (Stingray and Jaguar Paddlers). The canoe is marked with the k'an cross, the Maya symbol of creation. First Father also carries precious maize seeds on the canoe journey. The pottery is in the collection of the Museo Popol Vuh, Universidad Francisco Marroquin, Guatemala City.

The story of the Maya cosmogony inscribed on tablets in Palenque temples, the Quriguá Stela C, and codex ceramics, states that First Father was reborn on August 13, 3114 BC. The sun still did not exist and darkness reigned. The creator gods set up to form the universe on the same date as First Father was reborn from Xibalba. As a glyphic inscription on the Vase of the Seven Gods (figure 1.4) indicates, the gods' act of universe creation was accomplished in an underworld cave. The reborn First Father traveled in a celestial canoe accompanied by two Paddler gods (figure 1.5). He was resurrected, emerging from a crack in the cosmic turtle carapace

(representing the earth), and received by his two sons, the Hero Twins (figure 1.6). He then became the main protagonist in the creation of the world, together with the other gods placing the three stones of creation that marked the center of the cosmos and raising the tree (*Wakah-Chan*, the World Tree) that symbolized the three vertical levels of the world.[5] This set the stage for the creator gods to fashion people from maize dough in a primordial cave. The maize seeds came from a cave inside *Witz Mountain*, the primordial Maya Mountain of Sustenance, where they were buried with the remains of Bone Woman, the first wife of First Father. This goddess and her classic counterpart, the Maize Goddess, were represented by the ear of corn and its seed. In the cave, a deity, probably the rain god Chaak, split rock with a lightning bolt to release the seeds and allow the gods to create people from maize dough by mixing it with water, their own blood, or the blood of a tapir and a serpent (*Annals of Cakchiquels*).

Figure 1.6. First Father reborn from the crack in the cosmic turtle carapace and assisted by his sons, the Hero Twins. This is one of several resurrection scenes depicted on Maya classic ceramics. In some of them, the crack in the turtle carapace is represented as a k'an cross. Emergence from the crack may be equivalent to the rising of the Maize God from the cleft in the top of the primordial Mountain of Sustenance, Witz Mountain (First True Mountain) as depicted on Bonampak Stela 1 (see figure 2.27). The monster head on the left side of the turtle may be the Water Lily Serpent, perhaps representing the surface of the watery underworld. The skull marking the turtle shell has been identified as K'an Tok Kimi (Yellow-Torch-Death-Skull). The most likely interpretation of this symbolism is that the First Father rose from the depths of the underworld, represented by the skull. One of the Hero Twins, Xbalanque, on the right side of the scene, pours water from the akb'al jar (a symbol for darkness) into the crack of the turtle carapace. This may imply a connection with the growth of

corn, or it could be a newborn purification ritual as it was practiced in Mesoamerica. This photo is of an artistic reproduction of the original plate by Patricia Martin Morales, Los Ceibos, Muna, Yucatán, Mexico. The original plate (K 1892) was recovered from an elite burial site where it covered the face of the deceased. The small hole in the center was intended to allow the release of the soul of the deceased.

This Maya genesis story suggests that newly created humanity was modeled from maize dough. It reveals that for the most ancient people of Mesoamerica, civilization was born with the origin of agriculture and the cultivation of maize. The story also points to the paramount importance for the Maya of caves in the creation of the universe and humanity.

2

Caves and the Maya

Large areas of the Maya world in Mesoamerica are underlaid by a karst (limestone) landscape. *Karst* is the term for a landscape developed by dissolution of bedrock and the loss of water from the surface, typically via features such as caves and sinkholes. In Mesoamerica, natural caves are formed from these sedimentary rocks. Limestone is composed chiefly of calcium carbonate, often derived from the shells of sea creatures that have died and accumulated on the sea floor. Compaction and cementation of these deposits results in their fusion into solid limestone rock.

The uplift of limestone above the sea floor results in its exposure to chemical, physical, and mechanical erosion. Chemical erosion is the most important: when water dissolves atmospheric carbon dioxide, the water becomes mild carbonic acid and erodes limestone. The acidic water also penetrates fissures in the rock. The corrosive action of the acidified water, together with the turbulent flow of fresh water, enlarges these fissures, forming caves. Many caves form in the *phreatic* zone (below the water table), where all fractures, pores, caves, and other voids are filled with water. When the water level drops, the cave is then in a *vadose* (air-filled) zone. At this stage, deposition of *speleothems* (karst formations), such as stalactites and stalagmites, begins, a process that may continue today. In a cave occurring in a vadose zone, the ceiling may eventually collapse since it is no longer supported by water. Occasionally, the collapse will continue up to the earth's surface to form a large pit, referred to as a *sinkhole*. Especially in Yucatán, if water is present at the bottom of a sinkhole, the sinkhole is called a *cenote*.

The Yucatán region is a broad, low-relief platform composed largely of flat-lying tertiary limestone. Many of the Yucatán peninsula's longest caves are along its Caribbean coast and are filled with water. The Highland Chiapas region has caves formed in Cretaceous Period limestone, as does the northern Petén region. Caves also abound in the mountainous Alta Verapaz area,

which hosts some of the largest cave systems in the Maya region (e.g., the Cuevas Candelaria complex near Raxruha). On the other hand, the southern Guatemala Highlands are formed from volcanic bedrock, and many of its ceremonial caves have been dug in soft, volcanic *tuff* (a type of porous rock). Similarly, no caves are found in the Belize Maya Mountains, which are composed of igneous Triassic Period intrusive and older Paleozoic Period metasediments, neither of which form karst terrain. However, the large region surrounding the Maya Mountains in Belize and Guatemala contains Cretaceous limestone, which was deposited on and adjacent to older rocks. This karstic region contains some of the world's largest known caves, including the Chiquibul cave system on the border region of Belize and Guatemala. Many of the most important Maya ritual caves are found in this region. With the large number of caves in the Maya Lowland area, it is easy to understand why the ancient Maya were compelled to assign such an importance to these underground spaces, equating them with entrances to their underworld.

Cave Cult and Mythology

Geopiety, meaning reverence for the earth and its features such as caves, mountains, and cenotes, was central to Mesoamerican religions. In the Mesoamerican conception, the earth and all its topographical features was alive, and just as living beings were able to interact in human affairs. The earth was conceived as *theriomorphic* (having the form of an animal), sometimes as a crocodile, toad, or turtle floating on a primordial sea. Mountains were linked conceptually to caves because mountains were thought to be hollow. Cave entrances to the underworld were seen as tangible links between the corporal world above and the realm of the gods below. Thus caves, together with mountains and water, were seen as embodiments of the fundamental power of the earth. Caves were also sites of creation, the gods being thought to have initially made humans from a variety of substances before they created successful humans from a mixture of water (or divine blood) and maize (corn) dough, the seeds for the corn coming from a sacred cave inside *Witz Mountain*, the primordial Maya Mountain of Sustenance.

The Maya inherited the ritual use of caves from their cultural predecessors,

the Olmecs. An example is Loltun Cave in Yucatán, which later developed into a permanent sacred site. The Olmecs of the Gulf of Mexico coast were the first civilized people of Mesoamerica, and their culture is often considered the mother culture of the region. Long before the common era, their culture spread across the Tehuantepec isthmus to the Pacific shore of today's Mexico, Guatemala, and El Salvador. Numerous Olmec sculptures, namely those from San Lorenzo and La Venta, show Olmec rulers emerging from a niche symbolizing a cave entrance to the underworld. As an example, a ruler on Altar 4 from La Venta (approximately 400 BC) appears to be pulling a captive by rope to a niche, or underworld cave, perhaps to be sacrificed. An Olmec or Olmec-inspired cave cult is also quite obvious in Juxtlahuaca Cave, Guerrero, Mexico, where deep in the cave are well-preserved Olmec pictographs of a man and a jaguar. Similar to Altar 4 of La Venta, a mural from Oxtotitlan in Guerrero, Mexico, shows an Olmec ruler sitting in a cave entrance. Olmec or Olmec-influenced sculpture from Chalcatzingo in Morelos, Mexico (approximately contemporary with La Venta), shows the open mouth of a zoomorphic creature in a quatrefoil shape as a symbol of the living earth (Monument 9; figure 2.1). This monument is the first known representation of this type of portal, which the Maya later called *ol*. In the Maya era, the quatrefoil became a standard symbol not just for a cave entrance, but for any kind of sacred aperture, such as an entrance to the underworld or into the sacred.[6, 7]

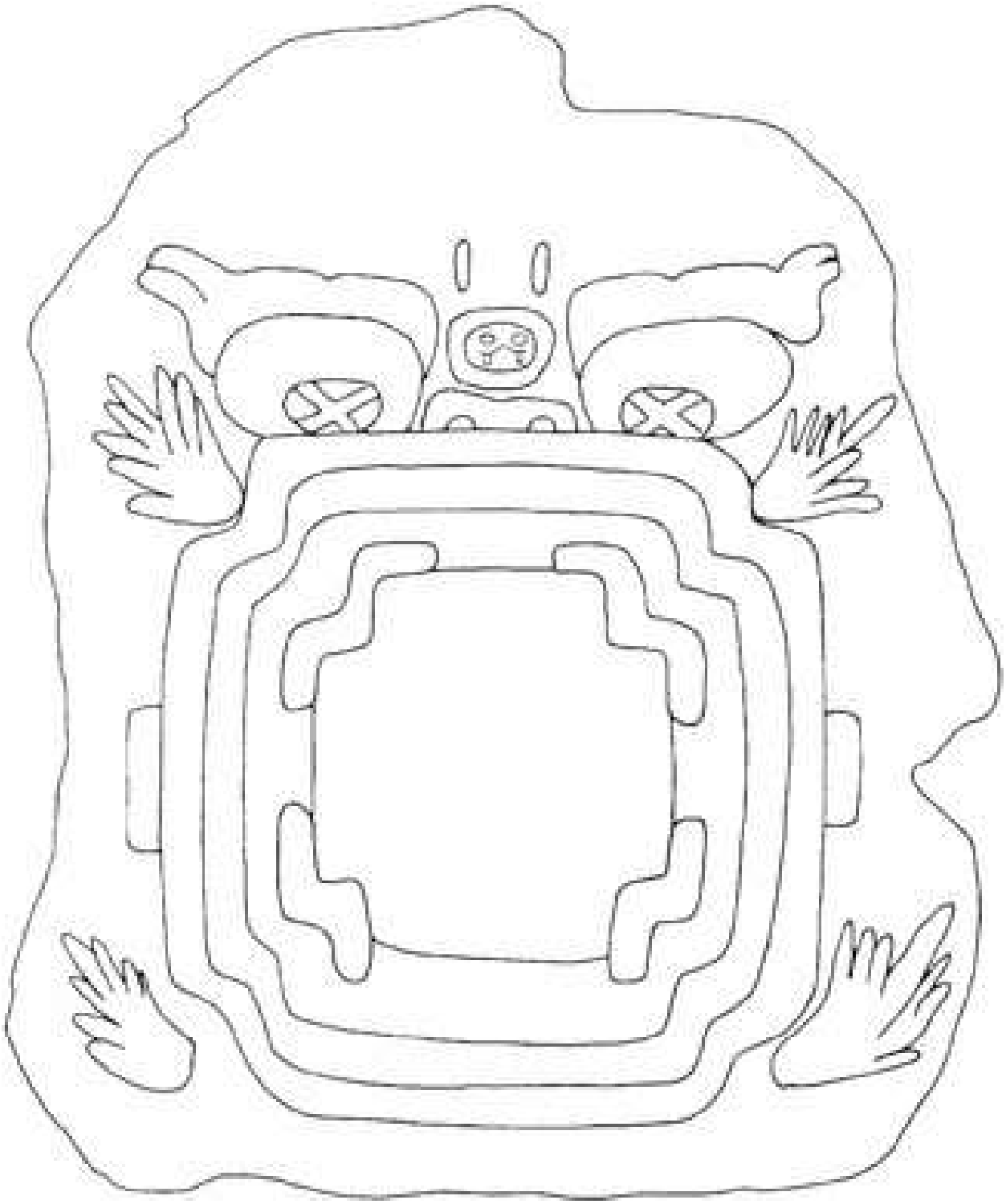

Figure 2.1. Drawing of the quatrefoil ol portal from Chalcatzingo, Morales, Mexico. The monument was a thin stone slab embellished with a frontal depiction of the Earth Monster. It was a living object, with plants growing in its corners. The opening was big enough for a small person to pass through, perhaps during a ritual. The slab may have been positioned as an entrance in a temple wall, or as a horizontal cover for a subterranean chamber. Perhaps a sacrificial victim passed through it on his or her way to the underworld.

The great city of Teotihuacan in the central Mexican Highlands came to existence in the beginning of the common era, evidently after older cultures were all but obliterated by a volcanic cataclysm. Sometime in the first century of the common era, the Teotihuacanos dug a seven-chambered cave under the Pyramid of the Sun and partly based it on an existing natural cave, constructing a huge cosmogram using the pyramid and the cave's celestial orientation. These artificial caves were used for rituals and burials. The Pyramid of the Sun contains stone drains that may have channeled rainwater into underground chambers to intensify its connection to the spiritual, watery underworld.

As was documented by the Spanish in the sixteenth century and by interviews with current Mesoamerica inhabitants, a longstanding regional belief exists that water originates in mountains and issues from caves. Native groups of Mesoamerica have long regarded caves with water sources as symbols of the generative womb of the earth giving birth to humanity. The secret chambers of Teotihuacan became the archetype of Mesoamerican ritual caves, giving rise to the myth of the Seven Chambered Cave as a place where humanity's ancestors emerged into this world.[8] This is perhaps why Mesoamerican cave mythology is often associated with the number 7. The existence of these caves in Teotihuacan pushes the origin of this myth back into the preclassic period, making it a myth inherited by other Mesoamerican people, including the Maya. In the Highland postclassic K'iche' Maya site of Utatlan, there is a system of artificial caves issuing from a tunnel under the central plaza. The pattern of the passages suggests that the caves represent a seven-chambered cave of origin. The caves still remain an important pilgrimage site for the K'iche'.

The most sacred feature of the Maya landscape were mountains, and Maya metaphors for these mountains were the man-made mountains of pyramid temples, built to reflect mythical mountains and caves. For the Maya, a living mountain was called *witz* (see figure 2.33) and portrayed as a living monster. It was believed that mountains and caves and their architectural counterparts (temples or shrines, and tombs) were the residence of *wayob*, the spiritual companions of living people. The Maya believed that *wayob* were animal coessences of humans.

Bone Woman (the Maize Goddess) was believed to be buried in a cave. Because she was the first supernatural being believed to die and be buried,

her burial became a model for the burial of humans. When the Maya deposited the bones of their ancestors in caves, they were returning them to the place of their origin. Perhaps one of the most conspicuous examples of this concept is the image on a stela from El Peru (ancient name, Waka), which shows a witz mask beneath the feet of a standing ruler (figure 2.2). In the two eyes of the mask, as if they are windows into the earth's interior, are the portraits of two ancestors, male and female. These individuals are possibly the parents of the king, peering out from the ancestor's cave. A similar message comes from a stone throne from Piedras Negras, where ancestors are peering from within a hollow *Witz Mountain*. Classic period Maya funeral pyramids with tombs of ancestors in their interior were referred to as *atotob*, or "houses in the afterlife," reflecting the same concept.

Figure 2.2. Basal register of Stela 31 from El Peru, Petén, Guatemala. The eyes of the witz mask are windows in the earth with portraits of two ancestors. They are located under the feet of the standing ruler.

For the ancient Maya, a cave opening to the outside world not only provided access to its interior, it also functioned as a symbolic interface between the subterranean and terrestrial world. Caves were unique for the Maya because they featured large, enclosed spaces, which did not exist in Maya buildings. The Maya had a desire for concealed space, either in architecture or in restricted caves. Sometimes the size of the entrance had to be reduced artificially so as to provide a more dramatic transition between physical and ideological space. The sacredness of a cave was not necessarily determined by its size (even small rock shelters could be sacred); many other factors such as accessibility and geologic features played a role. Since the caves were associated with rain and fertility, one of the most important factors was the location of water sources inside the cave. Underground rivers, springs, and lakes (cenotes) appeared to the Maya as the waters of Xibalba on which their gods and ancestors traveled.

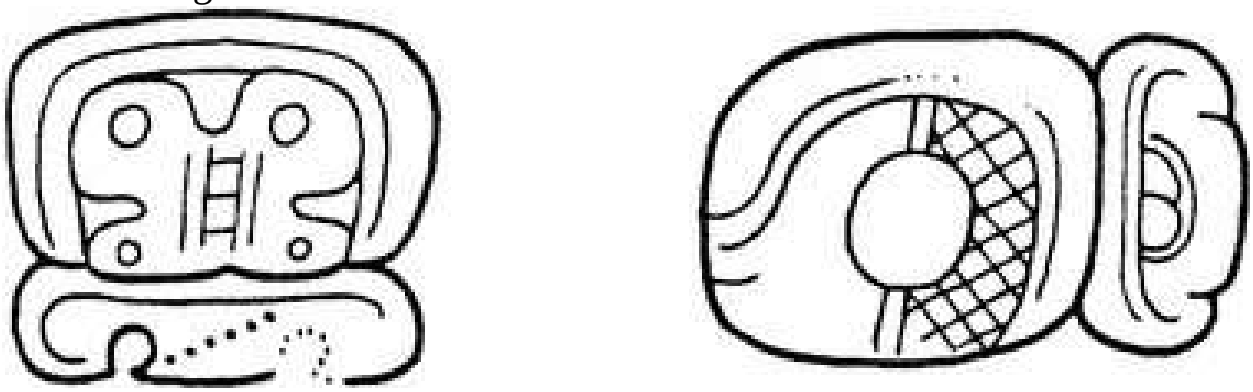

Figure 2.3. Ch'e'en hieroglyphs in early classic (left) and late classic (right) forms.

Recent epigraphic research indicates that the long-known Maya glyph *impinged* (squeezed) bone is probably readable as *ch'e'en*, meaning cave or spring (probably within a cave). The late classic version of this glyph was changed to what resembles a detached eye (figure 2.3). There are graphic similarities of this glyph or logograph to the sign of *muk*, or *muknal*, which means "burial." Eyes and bones are common motifs in Maya iconography; for example, they appear on the Vase of the Seven Gods just above the throne of God L, indicating a cave setting for the creation of the present world (see

figure 1.4).

The same symbolism also appears on ceramics in other contexts of death or burial. *Ch'e'en* appears in phrases like *och ch'e'en*, which is similar to *och witz*, and means "enters the cave [or mountain]." The walls of Jolja Cave in Chiapas exhibit many pre-Columbian paintings displaying the phrase "he arrived in his cave" and featuring an early classic "impinged bone" logograph (*ch'e'en*) as well. *Ch'e'en* as the sign for a cave also appears on the inscription of Altar 8 from Tikal, indicating that the sacrifice represented on this altar probably took place in a cave.

Topographical shrines (shrines built to reflect the physical and sacred characteristics of their geological surroundings) were built and visited to establish contact with divine forces. The Maya made remarkable efforts to reach the least accessible parts of these caves to conduct rituals, carve idols, and execute paintings. These were certainly not acts of convenience, as many of the underground shrines contained sheer cliffs and underground rivers. This is even more remarkable when we realize that for the Maya, some remote caves were sites of pilgrimage where pilgrims brought offerings and deposited them to supplicate the Lords of Xibalba. One of the most remarkable of these sites is Naj Tunich Cave (see figure 2.9) in southeastern Petén, which was an important pilgrimage site; the kings of Caracol and even perhaps of distant Calakmul ventured here for ceremonies to seek favors from the powers of the underworld. The caves of the Island of Cozumel, as another example, were evidently the focus of pilgrimages to honor the moon goddess Ixchel. Local economies must have benefited handsomely from the streams of pilgrims to these famous caves, since pilgrims evidently bought locally manufactured offerings for the infernal powers in the sacred caves. Important pilgrims were evidently Maya scribes, most likely members of elite families, who journeyed to the caves to invigorate their ties with the underworld.

Cenotes are a phenomena unique to karst topography, and they appear especially in northern Yucatán. Cenotes are caverns with underground lakes in which the cavern roof has collapsed. Many cenotes are part of large underground river systems and are connected to other caverns. Some "dry caverns" also hold underground lakes or cenotes deep inside (e.g., Balankanche Cave in Yucatán). As such, cenotes held profound fascination for the ancient Maya, being obvious entryways to the watery underworld (figure 2.4). Small shrines, mostly late classic or postclassic, were often built

on the edges of Yucatán cenotes. Although most of the shrines have collapsed now, divers occasionally find carved masonry blocks underwater.

Figure 2.4. Cenote Dzitnup, near Valladolid, Yucatán, Mexico.

Cave entrances were sometimes pictured as the open mouth of wild beasts such as serpents, jaguars, and saurians, symbolizing the Earth (*Witz*) Monster. In Chenes architecture, these mouths are the entrances to temples, and as such are portals to a sacred space. Temple doorways crafted in the shape of a monster's mouth also represented a cave leading to the underworld (figure 2.5). Thus, a king standing at the monster portal of a temple was thought to stand in a cave entrance to the underworld.

Figure 2.5. Entryway to the temple in Chicanna, Campeche, Mexico. The temple doorway mimics the fanged mouth of the Earth (Witz) Monster, an entry into the sacred place.

Cave Rituals

It is unclear why some caves were more important to the Maya than others, or whether different ceremonies were conducted in different caves and what otherwise differentiated the caves. Certainly caves with underground water, either cenotes or rivers, were the most sacred. Also, it appears that different areas of the caves were used for different religious rituals. Most likely, public ceremonies were conducted at the entrances so the public could witness them. These areas were also the most extensively modified by the building of such amenities as terraces and platforms. Private and more secret rituals were conducted inside the caves, quite often in deep, dark recesses. These exclusive ceremonies were probably conducted by the Maya elite, as suggested by the presence of stelae and polychrome ceramics. The highest concentration of artifacts have been found deep inside caves. It is likely the remoteness and difficult accessibility of a cave's inner chambers were important factors in determining the sanctity of the cave.

Many rituals were agricultural in nature, as suggested by finds of corncobs and annatto seeds. The discovery of fire pits with residues of copal (a hard resin from tropical trees) is evidence that these rituals most probably involved burning incense. Other rituals were connected with the collection of *suhuy ha*' (holy, or virgin, water) dripping from stalactites into ritual vessels; this water never touched the ground and was thought to be of otherworldly origin. The most important rituals were those of supplication for rain, especially in time of drought; these were regularly accompanied by human sacrifices to the rain god, Chaak. Caves were centers of water, and it was believed that rain gods, such as Chaak, lived in caves and that the rain itself was formed in caves.

Opportunities for other cave rituals were vast, be they the anniversary of a *k'atun* (a twenty-year period in the Maya Long Count calendar), a king's accession, special births, or other rites of passage. Veneration of ancestors, many of them buried in caves, also served as a focus for cave rituals. Caves were most likely a masculine domain; for instance, women and "other intruders" were not allowed to collect water for religious rituals in Yucatán's Gruta de Chac. A well-known illustration by Frederick Catherwood from John Lloyd Stephens's description of exploration of the Yucatán in the nineteenth century (see introduction) shows just men collecting drinking water from a pool deep in Gruta Xtacumblxunan (Bolochen Cave). Even the collection of utilitarian water was ritualized and exclusively the men's task.

In the classic period, many or perhaps most of the caves were used for elite rituals conducted by kings or ritual specialists (shamans) on behalf of their community. The public could view some of these rituals at cave entrances. With the subsequent disintegration of the Maya elite after the Spanish conquest, the cave rituals continued but were conducted by local *h-menob* (village priests or shamans) and the heads of clans and villages.

Maya cave rituals were aided by the consumption of alcohol, and the use of ritual enemas, hallucinogens, and bloodletting. It is easy to imagine the participants hallucinating and having visions. The cave's atmosphere would be deprived of oxygen from the burning of copal and torches, and this, combined with the cave's extreme humidity, would contribute to the altered state of the participants. Add the combined effects of bloodletting, hallucinogens, and alcohol use, and the results must have been overwhelming. Some large vessels found in the caves originally held the

intoxicating liquid *chi*. Rituals in at least one cave, Che-Chem-Ha in the Macal River Valley in the Cayo District of Belize, also included taking a sweat bath. It's possible that sweat bath rituals may have also involved sacred erotic activities, as alluded to in Naj Tunich paintings.

Recent ethnoarchaeological research has recorded elaborate rituals involving the catching and consuming of fish, which are present in many caves and cenotes throughout Mesoamerica. The consumption of cave fish was probably once widespread, as the cave fish were considered creatures of the underworld. Rather than as a diet resource, however, the catching of fish was probably part of a ritual.

Current knowledge of cave rituals is incomplete and based solely on the presence of surviving archaeological materials. Perishable items such as wood, incense, maize, cacao, and drugs that were part of the rituals have long since disappeared. Also missing from archaeological records are the droning chants of priests, the music from flutes and drums, the pungent smoke from torches and copal incense, and the effect of the dark and mysterious environment of the caves. The music may have included the pounding of "stone drums," speleothems that resonate when struck. With no explanation for the echoes, the Maya may have thought them to be the voices of underworld gods or spirits. Perhaps Maya ceremonial chambers were intentionally located in places with strong reverberations.

Human Burials and Sacrifices

Figure 2.6. One of the masonry tombs on the Naj Tunich balcony with its wall incorporating a karstic column. Petén, Guatemala.

The Maya used caves for both burials and human sacrifices. Burials in caves held great symbolic importance to the Maya because the bodies of the deceased were placed at the threshold of underworld, close to the gods. The bodies were being returned to the sites of creation and close to their ancestors, who were previously buried in caves. It is possible that some caves served as mortuaries, used specifically for burials, while others were used

exclusively for sacrifices. Preclassic elite burials were often carried out in masonry tombs. Naj Tunich Cave (figure 2.6) and other caves in northeastern Guatemala and western Belize (Balam Nah, Santo Domingo, Actun Chapat, and Actun U'chem Tzub) contain elite preclassic burial sites in alcoves blocked with unshaped stones. Most of these tombs were looted, most likely in antiquity, perhaps as a result of frequent warfare between the Maya polities. Evidently, the bones of ancestors were targeted and often destroyed in warfare. The vulnerability of cave masonry tombs was probably the reason why elite burial practices were changed in the classic period to a technique using more secure rock-cut tombs. Rock-cut tombs under pyramid temples or plazas in Maya cities also resemble sacred underworld caves inside mountains (see figure 3.57).

The Maya also conducted secondary burials, bringing to the caves whole or partial skeletons after removing the flesh from the bodies elsewhere. Although burials and sacrifices are sometimes difficult to distinguish, it is clear that many of the human remains found in caves are those of people who were sacrificed to appease the underworld deities. Distinguishing burials and sacrifices is further complicated by the action of underground waters, which move light human bones and obscure their original context. Excluding the action of floodwaters, sacrifices were usually left to lie on the cave floor, in recesses, or in niches, and the bodies were not surrounded by any offerings. Human sacrifices can also be distinguished by the skeletons' positions; sometimes the hands of victims were tied behind their backs.

Human sacrifices were often conducted in almost inaccessible areas of the caves. Some caves, like Belize's Actun Yaxteel Ahau, Barton Creek Cave, or Actun Tunichil Muknal, can be entered only through underground rivers, so the prospective victims had to swim to their fates. In other caves the victims had to climb high on precarious ledges, enter through deep shafts or over sheer drops, or squeeze through narrow passages. The Maya must have constructed giant ladders to reach the depths of some caves (e.g., Midnight Terror Cave). It's difficult to accept that the victims would undertake such arduous journeys voluntarily. Most likely the victims were drugged and then brought to these remote and difficult-to-access sites to meet their sacrificial death. In some cases, Maya ritualists dragged the dead bodies of victims, dispatched previously elsewhere, to the sites where they are now found (e.g., in Skeleton Head Cave and Grutas de Calcehtok). It seems that the Maya

sometimes deliberately placed the victims' bodies in rimstone pools (pools created by *rimstone*, a calcite mineral build-up created when water flows over the rim of a dam), which occasionally are flooded. This is perfectly understandable, considering that many sacrifices were carried out to appease the rain god Chaak, especially during drought. The association of human (infant) sacrifices with water sources has been known in Mesoamerica since at least Olmec times or as early as 800 BC. Some caves still contain almost intact skeletons, though often with missing craniums, deposited after the most common method of sacrifice, which was decapitation (figure 2.7). It is unknown whether these rituals involved placing the severed skull apart from the rest of body. In sheer number of human remains, recently discovered Midnight Terror Cave in the foothills of the Maya Mountains stands out. In this cave at least eighty-four skeletons of sacrificial victims (four of them children) have been identified, and the whole cave system is not yet completely explored.

Figure 2.7. Calcified skull of a sacrificial victim from Actun Tunichil Muknal in western Belize. Note the flattened forehead, a classic Maya fashion.

Evidence of child sacrifices has been found in many caves in the Maya region.[9] Infant sacrifices in caves were conducted much more often than they were on the surface, with children offered to Chaak (figure 2.8). Perhaps children were considered the most powerful supplicants in times of extreme distress. Some codex vases portray such sacrifices. A late classic plate from Tikal provides the best iconographic corroboration of these archeological findings. Among the assorted *wayob* on this plate, there is a human female holding a sacrificed infant.

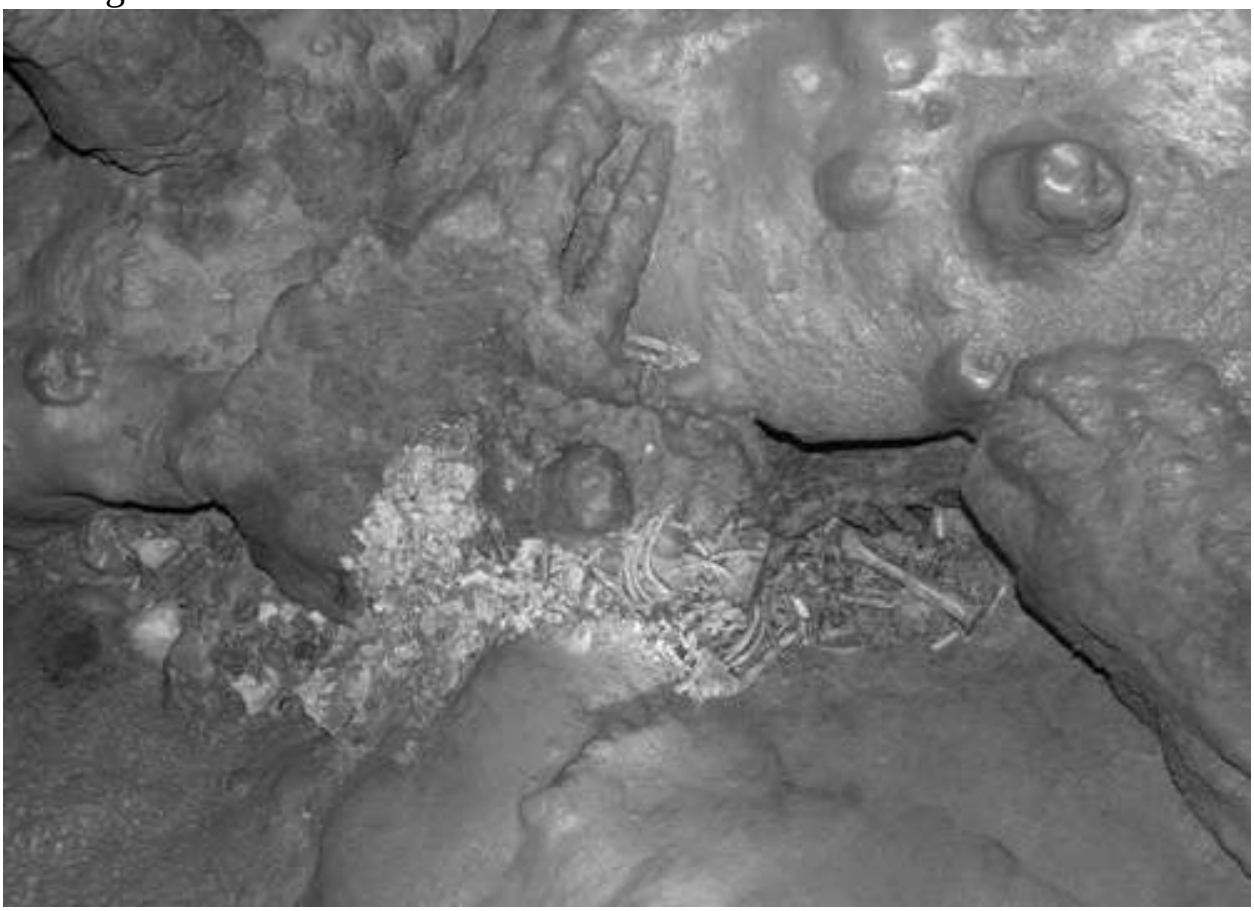

Figure 2.8. Evidence of the sacrifice of an infant in a remote area of Actun Tunichil Muknal, Cayo District, western Belize. Note the large adult femur included with the infant remains.

Yucatán has more then 2,600 cenotes, and many were used for rituals, both burials and sacrifices. In cenotes, some sacrificial victim bodies were just thrown into the water, whereas elsewhere bodies were deposited with care.

Sometimes the Maya had to swim with the bodies to deposit them. Some sacrifices were apparently performed prior to depositing the body in the cenote, sacrifices that included decapitation or heart extraction. Some skulls of the victims also have cut marks, so the heads of the victims may have been de-fleshed in some unknown ritual. Like caves, some cenotes were imbued with more power than others. The more powerful were used for rituals, including sacrifices or burials.

Animal Sacrifices

The Maya also sacrificed many animals in caves, including chickens, dogs, peccaries, rodents, jaguars, deer, crocodiles, and birds. Other living offerings included freshwater snails, sea shells, crabs, and shrimp. The sacrifice of dogs may have held special significance. According to Highland Mexican myth (and most likely Maya myth), a mythical dog that can see in the dark accompanies the soul of the dead into the underworld to guide the soul through this dark and dangerous realm (see also figure 3.56). A rather poorly preserved stela, now in the Campeche Archeological Museum, shows a scene of skinning a live deer in a cave. Also curious is the sacrifice of tapirs (mountain cows), evidence of which has been found in several Maya caves (Crystal Cave [Mountain Cow Cave] in Belize, and Hun-Nal-Ye Cave in Alta Verapaz, Guatemala). In both cases the skeleton of the tapir was incomplete (see figure 2.48). It is difficult to imagine how a tapir was dragged into the cave because the cave is accessible only by crossing a deep cenote at the top of a waterfall. It is possible that tapir sacrifice was connected with the myth that tapir blood was used by the gods to create the first people. Contemporary Maya still sometimes conduct animal sacrifices in many caves in the region, especially on auspicious days.

Cave Modifications and Constructions

The great importance of caves to Maya religious beliefs is attested to by the tremendous effort extended by the Maya in modifying them. Many caves included masonry walls, terraces, platforms, tombs, stairways, and shrines. In the coastal region of Quintana Roo and on the Island of Cozumel, in the late classic and postclassic periods, the Maya built small shrines in caves.

Especially large architectural modifications can be observed in Naj Tunich Cave, where the Maya built a huge fourteen-meter balcony supported by terraces in the entrance of the cave (figure 2.9). The balcony was a burial site for high-status persons, with several masonry tombs constructed in the preclassic period. These elite tombs contained precious offerings. Some of the tombs were actually built into recesses or alcoves, stalagmites and stalactites were sawed off, and the tombs were paved with flagstones (see figure 2.6). At least one of the burials in the masonry tombs was royal, containing such offerings as jade and pottery. One of the vessels has a glyphic inscription “Lord of the Office, Lord of Succession.” Just behind the balcony of Naj Tunich Cave is a pool of water formed by a dammed spring. The balcony was probably used for public ceremonies so they could be witnessed by a large audience. Another cave with very extensive modifications is Actun Chanona in western Belize in the karstic foothills of the Maya Mountains. Deep inside, the Maya built the Great Platform, a huge, elevated stage on which to perform ceremonies.

Figure 2.9. View of the balcony from the entry hall of Naj Tunich Cave, Petén, Guatemala. This is one of the most sacred Maya caves. The remains of the retaining walls, supporting the balcony and built by Maya inside the cave, are visible.

The Maya also constructed retaining walls, platforms, pathways, steps, traffic-flow designators, and access-restricting walls in their caves. The Maya artificially sealed cave entrances and built walls from stones and clay containing pottery shards and even human bones. Some of these modifications may have been part of termination rituals for the cave, as in Dos Pilas, or as protection against enemies in the face of attack. In the cave of Actun Toh, Yucatán, a small, terraced pyramid was built, which apparently complemented the cave's sanctity (see figure 3.8).

An amazing ritual-cave discovery was made recently in the Mexican Yucatán peninsula, southeast of Merida, at Tzibichen, an abandoned ranch. Dr. Guillermo de Anda of the University of Yucatán discovered a ritual cenote-cave complex by studying records of the sixteenth-century Spanish inquisition, which torture-investigated Mayan "heretics" to discover their secret places of pagan worship. The deposition revealed clues to the existence of a large cave complex, which was a site for secret Maya rituals even in the colonial period. This complex consists of fourteen connected caves, some with water. Evidence of ritual activities includes pottery, human and jaguar remains, and most notably, eleven masonry temples, as well as walls, altars, and sculptures. Significantly, the masonry temples and partitions were built in a very different style from that of masonry structures discovered in other caves. Instead of using dry masonry or stucco, the complex temples and walls were built from undressed stone and a cement-like mortar, sometimes containing pottery shards and human bones. The oldest pottery dates to about AD 100. Other sculptures and vessels date to AD 750–850, the end of the classic period. A collapsed temple, with a sculpture of a death god, was found 35 meters under water in a cenote. In another cave, a 100-meter-long *sak be* (stucco-paved procession road) leads west through a chamber to a column standing in front of an underwater pool.

In March 2010, while I was exploring part of the Tzibichen Caves system with de Anda, we found ourselves standing at one of the caves' mouths after a short hike through the thorny Yucatán bush. We moved quickly inside to avoid being bitten by aggressive wasps nesting at the cave entrance. Locating a ledge almost two meters high, we climbed it, squeezed through a low opening, and looked into the ceremonial cave floor four meters below us. We were fortunate that our folding ladder just reached the cave floor. Once we stepped from the ladder, we faced an amazing small masonry temple with a

small lintel-reinforced opening. Not far from us was a partition built across the breadth of the cave, with another small entrance. The partition was built in the same building technique as the temple using stucco mortar. An amazing surprise awaited us beyond the partition: the cave's floor was absolutely level and devoid of any large stones. We were standing in a sacred space, separated from the profane by the partition. The cave ended in a small alcove-shrine. Some of its stalactites had been cut out by the Maya, but it still resembled the gaping mouth of the Earth (*Witz*) Monster. Inside the alcove were remains of charcoal, evidently from burning copal.

It appears that by modifying natural caves and cenotes, the Maya intended to replicate Popol Vuh, the sacred text dealing with the travel of the dead to the underworld. These caves may be one of the best examples of the replication of that myth. The caves' roads lead west (the direction of the setting sun and Xibalba); their crossroads are confusing; and they include pools of water (Rivers of Blood or Pus), a chamber of roasting heat (in an otherwise cool cave), a chamber of swarming bats, and a chamber of knives (filled with sharp speleothems). The research in this cave complex continues.

The Quintana Roo coast of Yucatán was densely inhabited, especially during postclassic times; it was also an area of embarkation for the Island of Cozumel, an important pilgrimage site. This island is separated from the Yucatán mainland by an almost twenty-kilometer-wide strait with strong currents. The crossing of the channel in canoes was probably a difficult undertaking. Despite that, the island served as an important pilgrimage center, especially for Maya women devoted to the goddess of fertility and the moon, Ixchel. The sixteenth-century Yucatán Bishop Diego de Landa wrote

> And they held Cozumel and the well of Chichén Itzá in the same veneration as we have for pilgrimages to Jerusalem and Rome, and so they used to visit these places and to offer presents there, especially to Cozumel, as we do to holy places. (Landa D. de 1941)

Ethnohistoric sources indicate that Cozumel received a great number of pilgrims even from distant lands such as Tabasco, Xicalango, and Champoton. The ports on the Quintana Roo mainland, including Xcaret and Xamanha (today's Playa del Carmen), were evidently busy with pilgrims as well, who also visited caves.

The sacred places on the island included caves and cenotes that, like their counterparts on the mainland, were extensively modified by the building of

shrines, staircases, interior masonry walls, and altars. The cave and cenote shrines were connected by *sak beo'ob*. The ancient pilgrimage circuit was laid out in relation to the island's caves and cenotes. The island's principal religious site was evidently San Gervasio in the interior of the island, with its three caves, accessible from the temple. During restoration, human bones, ceramics, and conch shells were collected from the caves' floors. A *sak be* terminating in a stairway led to the temple's cenote. Most of these modifications are now ruined and barely noticeable.

The Quintana Roo Caribbean coast also has many ritual caves, used both by Cozumel pilgrims before embarking on the sea journey and inhabitants from the coastal strip. They too include small shrines. Those in caves like Gruta las Caritas (Actun Ch'en; figure 2.10) or in caves around the Maya city of Xcaret were sometimes built around speleothems (see also figure 3.7), which were painted and often accompanied by carved faces. Speleothems were closely associated by the Maya with rain, fertility, and the production of *suhuy ha'*. Several of these cave shrines were built around thrones or benches that were originally occupied by idols, which have long since disappeared.

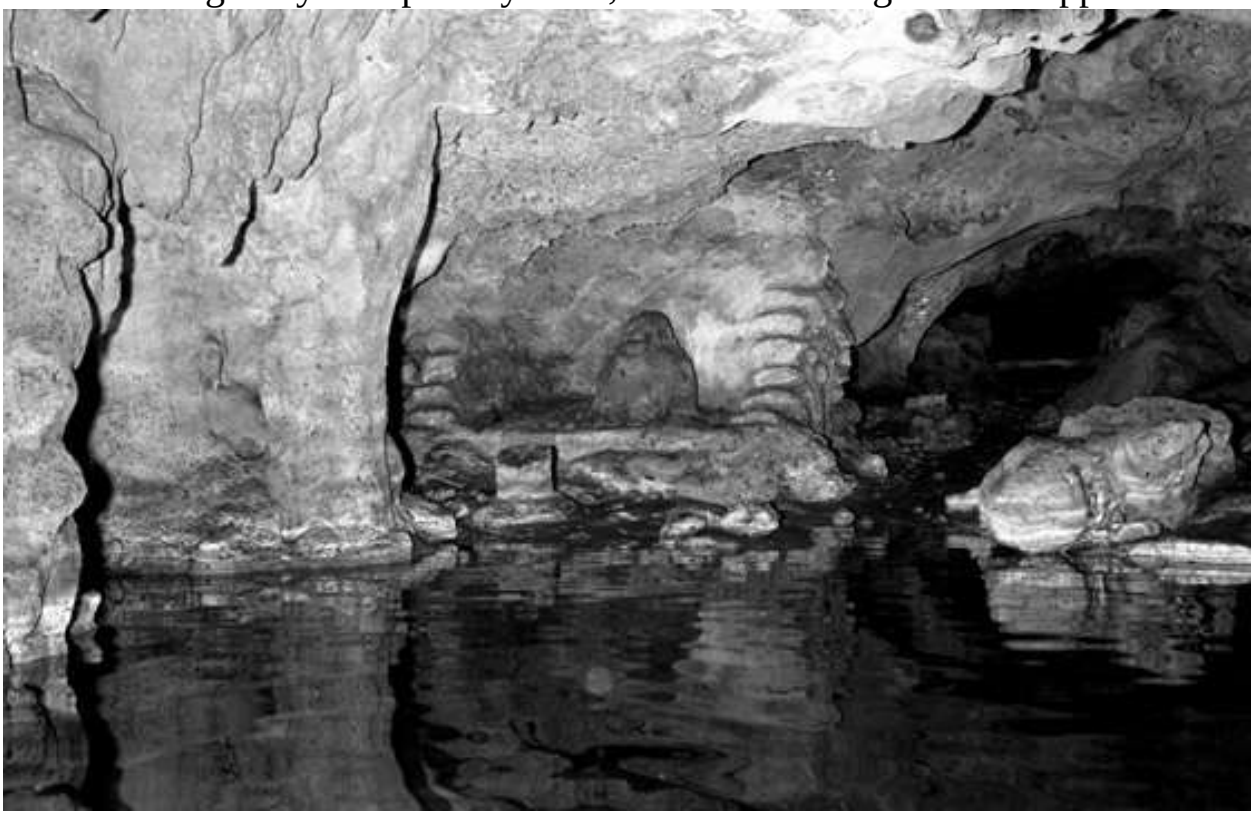

Figure 2.10. Cave Shrine 2 in Gruta Las Caritas, Actun Ch'en, Quintana Roo, Mexico. The shrine was built around a speleothem on the far side of the entrance pool. Photo courtesy of Dominique Rissolo.

Other man-made stone objects in caves include carved troughs, altars, carved and uncarved stelae, and stools and benches. Altars were often produced by cutting off stalagmites, to form a sort of speleothem stump (see figure 3.4). Some altars were just large, flat, natural stones found in the caves. Others consisted of stacked flat stones, sometimes arranged in an inverted V-shape. Seats, benches, and flattened boulders indicate that the Maya used them for meditation or as seats for gods or idols. In caves with underground water sources, the Maya cut stairways leading to water pools or rivers (e.g., Naj Tunich Cave, Actun Toh, Pak Ch'en, Cenote Tancah, and Pool Tunich; see figure 3.5), and built the steps from speleothems. Also, in several caves, openings to small alcoves were artificially enlarged into the shape of a rectangular door to provide access to caves within a cave and harboring small shrines (see figure 3.16) or sometimes a tomb (see figure 2.6).

Figure 2.11. Altar cut from a large limestone block in Rio Frio Cave E at Mountain Pine Ridge, western Belize. The small steps in the front of the altar's lower portion lead to a small monument above. A small depression in the front of the upper portion contained burned offerings. Traces of soot are still visible.

As in surface sites, the Maya erected stone slabs, as stelae, in some caves. The vertical thrust of stelae was very significant because the Maya associated verticality with the status of sanctity. This is evident in Maya cities with their high temples and stelae. The vertical monuments demarcated holy areas and were erected in particular chambers reserved for elite rituals. Stalagmites and stalactites, with their natural verticality, were probably regarded by the Maya

as sacred monuments. Most cave stelae were cut from local stone, although a few were carved from stone slabs brought from outside. Most of the cave stelae are uncarved. A carved speleothem, possibly an altar, is located in Rio Frio Cave E at Mountain Pine Ridge (figure 2.11). In Actun Tunichil Muknal, three stelae are located in an alcove almost two meters above an underground stream about five hundred meters inside the cave. The stelae are carved from slate, which had to be brought from outside the cave (figure 3.30). This stela shrine was evidently the locus of elite bloodletting rites. At Cenote Tancah, a postclassic stela with a carved face stands next to a stairway leading to water (figure 2.12). At the foot of the balcony in Naj Tunich Cave stands a large, unadorned limestone slab, serving as a stela, and a likely focus of public ceremonies. A similar stela from limestone also stands in another Petén cave, Pusila Cave (see figure 3.12).

Figure 2.12. Carved postclassic stela in Cenote Tancah, Quintana Roo, Mexico. An image in the center is similar to faces carved next to the stairway (see figure 2.19) and may represent a guardian spirit of the cave.

Speleothems

Most karstic caves are decorated with stalactites, stalagmites, columns, and flowstones, called commonly speleothems. (*Flowstone* is created by layered calcium carbonate that forms when water flows or drips along the walls or floor of a cave.) For the Maya, stalactites and stalagmites were living and sacred rocks because they grew and produced “sweat” (water). Additionally

the speleothems were connected with earth, fertility, and sexuality. Stalactites seemed to be associated with females, the stalagmites with males. When stalagmites and stalactites grew together to form a column, they seemed to resemble a sexual union. Thus, the columns were considered even more sacred, and the Maya often believed that cave guardian spirits resided in them. Perhaps for these reasons, the karstic columns in caves were never cut by the Maya, although the mining of stalactites and stalagmites in caves was a common occurrence. The Maya took cut speleothems (not columns) from the sacred caves and often deposited them in dedicatory caches at the surface sites. The sawed-off stalactites and stalagmites, together with flint, obsidian, or elemental mercury, were sometimes placed in offering caches at such locations as Copan and Caracol. Evidently, these speleothems functioned as portable symbols of a cave's power.

Speleothems visually produce water in caves. Dripping water from stalactites was collected in *haltuns* (stone troughs) fashioned from speleothems (figure 2.13) or in other sacred vessels (see figure 3.9). The Maya believed that this was virgin water, *suhuy ha*', having never touched the ground, and often used it for rituals. Speleothems were also used for carved religious vessels, many with underworld themes. Yaxchilan Stela 31, standing in front of Temple 33, was made from a sawed-off stalagmite, evidently coming from a local cave and originally incised with a bloodletting scene (figure 2.14).

Speleothems, thought to have possessed magical properties, were sometimes carved into idols representing guardian deities, spirits of the rocks, or gods of the underworld. They were carved quite rudely compared with classic sculptures (figure 2.15). They were believed to contain the spirits of water, corn, and lightning, since the first corn seeds were thought to have come from rocks split by lightning from Chaak.

Figure 2.13. Water from a stalactite dripping into a haltun in Loltun Cave, Yucatán.

Figure 2.14. Speleothem stela standing in front of Temple 33, Yaxchilan, Chiapas, Mexico. It was probably mined from caves found inside the city.

Some unusual natural speleothems presented vertical elements admired by the Maya. Examples include a stone altar in Naj Tunich Cave; an unusual “rabbit ears” speleothem formation in Actun Kabal (one of the large Chiquibul caves of southwestern Belize); the speleothem altar in Bol’s Cave, Pine Ridge, Belize; and another “rabbit ears” formation in Footprint Cave, Belize. Near the latter formation on a ledge above an underground river are a large deity mask and the remains of several ceremonial fires (see figure 3.43).

Figure 2.15. A cave idol, augmented from a stalagmite, with mouth and eyes recently painted red with annatto, substituting for blood. It is still venerated by the local Maya, who conduct ceremonies in this cave in Cueva Lanquin, Alta Verapaz, Guatemala.

The Naj Tunich Cave vertical altar in the K'u Multun Maze passage was built from stones stacked up seventy centimeters high. The stones must have been laboriously hauled from the North Passage of the cave. The sanctity of this vertical altar was accentuated by placing broken *olla* rims on the top of the altar (figure 2.16). The Maya performed ceremonies at this altar, as suggested by the smoked-blackened top stone and a piece of unworked jade, ceramic shards, and a broken polychrome plate found nearby. The nearby hieroglyphic panel (Text 88) dates the ceremony performed at this altar to

AD 692.

Figure 2.16. Naj Tunich Cave olla altar located deep in K'u Multun Maze, Petén, Guatemala. Photo courtesy of Chip Clark.

A deep pit inside Naj Tunich Cave called Mitlan Ch'en (Underworld Cave) leads to an almost inaccessible part of the cave called Naj Tunnel that contains archeological material, including an unusual cave painting: hieroglyphic text rendered on a 2.4-meter-high stalagmite, which appears to be almost a signpost. The text appears to refer to the shape and position of the speleothem. The glyphs may refer to a "god's sacred precinct's mouth" (in Yucatec, *chi'il k'uh*), perhaps referring to the nourishing of gods by smearing blood on the mouths of idols during rituals. The Lacandon Maya still smear achote-seed dye over the faces of cave idols, as a substitute for human blood (a *k'ex* sacrifice). Because stalagmites were often treated as idols in Maya rituals, here this may be a stalagmite identified with the mouth of a god (compare with figure 2.15). The stalagmite stands as a gateway to an upper-level room (apparently a shrine), which contains a small altar. A stone box with stalactite fragments and an intact vessel were also found here.

Cave Rock Art

Petroglyphs and Sculptures

Both *petroglyphs* (carved images) and *pictographs* (painted images) fall under the general term of rock art. For practical reasons, these two classes of rock art are separated here, even though there is considerable overlap between the two groups. Carved images appear in many Maya ritual caves throughout the region. Most of them are images of human faces (called scary or screaming faces) or skulls. These may be the faces of the guardians, owners, or spirits of the cave. Other images include foot- and handprints and more abstract designs. The carved faces always appear in the twilight areas of the caves and seem to be associated with a seasonal source of water.

In Te Tun Cave in western Belize, five faces are carved into a large karstic column above a formation modified to resemble an altar. The faces are arranged in what resembles a quincunx pattern (figure 2.17). Some flowstone formations are crudely shaped into giant masks of infernal monsters, as in Actun Halal (see figure 3.21) and Actun Chanona in western Belize. Actun Uayazba Kab (Cave of the Sorcerer's Handprint) in Roaring Fork Valley, western Belize, is rich in rock art, both petroglyphs (scary faces, skull images, footprints, and abstract images) and pictographs. While the paintings are located deep inside the cave, petroglyphs also exist at the cave entrance.

Cueva Tecolote in central Petén, not far from Lago Petén Itzá, has a large panel of several columns of carved faces originally painted red. The cave also has a system of crude stone walls enclosing the ritual spaces and is still used by modern Maya *brujos* (priests skilled in communicating with spirits). The carved faces, perhaps belonging to the cave's guardian, are probably contemporary with the ceramics found in the cave, and thus preclassic.

Figure 2.17. Carved faces in a karstic column and arranged in a quincunx pattern, representing the four cardinal directions and the vertical orientation of the underworld and heaven. The column, resembling a stela, is located in a twilight area of the cave near a small subterranean waterfall of a tributary creek to Cave Branch River. The altar in the front could be the Kawak, or Earth (Witz) Monster. Te Tun Cave, western Belize.

The Yalahau region of northern Quintana Roo has abundant surface water, and therefore caves did not have to be used as sources of utilitarian water, unlike in other parts of Yucatán. The major preclassic surface site in the region is El Naranjal, and more than twenty caves surround it, all with ritual functions. Some may also have been pilgrimage sites for the inhabitants of Coba, which is located about thirty-five kilometers south and has no caves in its vicinity. One of the caves in the area, Actun Toh, has a terraced pyramidal

structure as well as a stairway leading to a pool (see figure 3.8). The pathway to the pool descends beneath a panel of seven carved faces, again perhaps guardians or spirits of the cave.

Another cave in the same area, Pak Ch'en Cave, exhibits a stairway built from speleothems. The stairway passes an impressive panel of rock art: faces of God C (the God of Sacredness), and figures evoking the rain deities Tlaloc and Chaak. Surrounding these images are at least nine distinct vulva motifs. Water often appears conceptually associated with the depiction of female genitalia. The Pak Ch'en pathway also terminates at a small pool. Located directly above the pool is a realistic rendering of a vagina, which undoubtedly marks this spot as a watery, womb-like, fertile place, the sacred epicenter of the cave (figure 2.18).

Figure 2.18. Pak Ch'en Cave vulva motifs, Quintana Roo, Mexico. Photo courtesy of Dominique Rissolo.

Cenote Tancah (sometimes also called the Door to the Underworld or

Doorway under the Sea) is located in the vicinity of the postclassic city Tancah, north of Tulum in Quintana Roo, Mexico. This small twilight cave, about four hundred meters from the temple, has a sloping rock face with at least five cut stairs leading to a twelve-meter-deep pool. The rock face on the side of the stairway is covered by many petroglyphs, including simple faces and ladder-type elements, perhaps signifying “steps to the water” (figure 2.19). The carved stela standing in the southern corner of the cave has a face element (see figure 2.12). The Mayas were certainly aware of the connection of this cave cenote with the nearby Caribbean Sea, where the underground system Sac Actun spills into the sea in nearby Caleta Tancah, Cenote Manatee, and Casa Cenote farther north. Freshwater springs in the sea have long been known as *ojos de aqua* (eyes of water). The Maya may have swum in some of these passages all the way to the sea; the sea’s depths may have represented the underworld.

Figure 2.19. Petroglyphs on sloping rock in Cenote Tancah, Quintana Roo, Mexico. Ladder-like elements and a face are visible.

Seven Balam-Na caves honeycomb an isolated hillock northwest of Poptun

in eastern Petén, Guatemala. The hill stands near an unexcavated settlement. Each of the caves evidently served a different function: Cave 1 has rock art (forty petroglyphs) and no burials, while Cave 4 is a burial cave with walled-alcove preclassic tombs and a cache of human bones under a ceramic plate and *incensario* (ritual censer). Interestingly, Cave 1, located highest on the hill, is in fact a tunnel leading through the karstic hill. About a dozen carved round faces found here seem to represent the spiritual companions *wayob*. The glyph *ak'bal* (a symbol for darkness) is also recognizable on some of the speleothems. Most conspicuous is a large sculpted face on a boulder near one entrance: it evidently represents the face of the Jaguar God of the Underworld (figure 2.20). It is unusually artistically rendered and has almost Olmec characteristics, being perhaps contemporary with the preclassic burials in Balam-Na Cave 4.

Naj Tunich Cave in the Guatemala Department of Petén, most famous for its paintings, also has a few faces pecked into its speleothems and an interesting image of an animal, perhaps a tapir, carved at the foot of balcony and next to a stela in the cave's twilight area (figure 2.21).

Figure 2.20. Mask of the Jaguar God of the Underworld in Balam-Na Cave, Petén, Guatemala. Note the pudgy nose and big lips, classic Olmec traits.

The small cave La Pailita in northwestern Petén once featured a large, elaborate statue of Chaak. The statue was about 1.5 meters high, built from masonry, and covered by stucco. The statue had a headdress, was clothed in a breechcloth, carried an axe against its chest, and was adorned with a pectoral ornament and elaborate ear spools. The legs of the idol were smudged from ritual fires, and the ground around it was littered with broken ceramic offerings. This was certainly a unique and important cave idol, a subject of the rain cult of the ancient Maya. The statue was discovered in 1967 and was later completely destroyed by vandals.[10]

Figure 2.21. Carving of an unidentified animal (perhaps a tapir) in Naj Tunich Cave, Petén, Guatemala. According to one version of the creation myth, the gods modeled people out of maize dough and tapir blood.

Pictographs

Considering the large number of caves in the Maya area, only about forty have paintings. By far, the most common paintings in the caves are

handprints, either positive or negative (see figure 3.26). These appear in many caves or in the vicinity of cenotes throughout the Maya area. The meaning of the handprints is not really clear. A handprint may not have had much religious meaning; it could have been a simple statement of “I was here.” More likely, it could mark the spot where a shaman, during a ritual, touched a cave wall and metaphorically entered the underworld. Guillermo de Anda observed many children’s handprints near a cenote where he found a large number of children’s bones, remains of apparent sacrificial victims. Were the handprints “signatures” of the victims just before the sacrifice?

Most likely the paintings in caves are related to the ceremonies performed there, and most are fairly rudimentary. A glaring exception is found in Naj Tunich Cave in eastern Petén, Guatemala, which has paintings and calligraphic drawings of glyphs artistically comparable to the best Maya vase painting. It is interesting that most of the images in Naj Tunich appear in deep recesses where arcane ceremonies probably took place. This is understandable because, as noted above, the remote areas of these caves were most likely reserved for elite ceremonies, and the artists who executed the paintings were members of the elite, often even members of royal families. These scribes attained near sacred status for their near superhuman abilities. They may have traveled to the caves to renew their association with the supernatural world and to affirm the divine aspiration of their craft.

The inner areas of Naj Tunich Cave, the tunnels, are accessible via a single entrance from an artificially built balcony (see figure 2.9). Many of the paintings were recently destroyed by vandals, so some of the images only exist in photographs. It could be argued that the single most important discovery made in Naj Tunich was a collection of painted hieroglyphic texts. These ritual paintings are the largest collection of Maya texts (numbering over forty) ever found in a cave, and they offer a unique view into the use of the cave as a pilgrimage site. They are scattered throughout the cave, occupying its deepest recesses of over 2.5 meters (figure 2.22). The texts are in close proximity to scenes depicting arcane rituals, so it appears that the cave inscriptions came into existence in a highly charged ritualistic atmosphere. The cave inscriptions contain two anchoring dates of the Maya calendar round (a common multiple relating different Maya calendars) falling on AD 692 and AD 771, so it is probable that all the inscriptions and paintings were made during this time period. Since the cave was ritually used

from preclassic times, the glyphic inscriptions were evidently executed after the cave had been known as sacred for many hundreds of years. Some of the inscriptions seem to identify the actors in the rituals as scribes or shamans. On the other hand, some inscriptions may allude to the possibility that some of the actors in the rituals were supernatural beings, such as cave-dwelling, deified ancestors manifesting themselves as atmospheric forces (e.g., thunderbolts and clouds). References to supernatural beings are suggested by the presence of such expressions as *Na-ho-chan*, a supernatural locale usually associated with the Paddler Gods or Maize God. Historical persons are also clearly mentioned in the inscriptions, linking them to the emblem of certain cities (such as Caracol, Calakmul, and Ixcun) and to participation in pilgrimages to this sacred site.

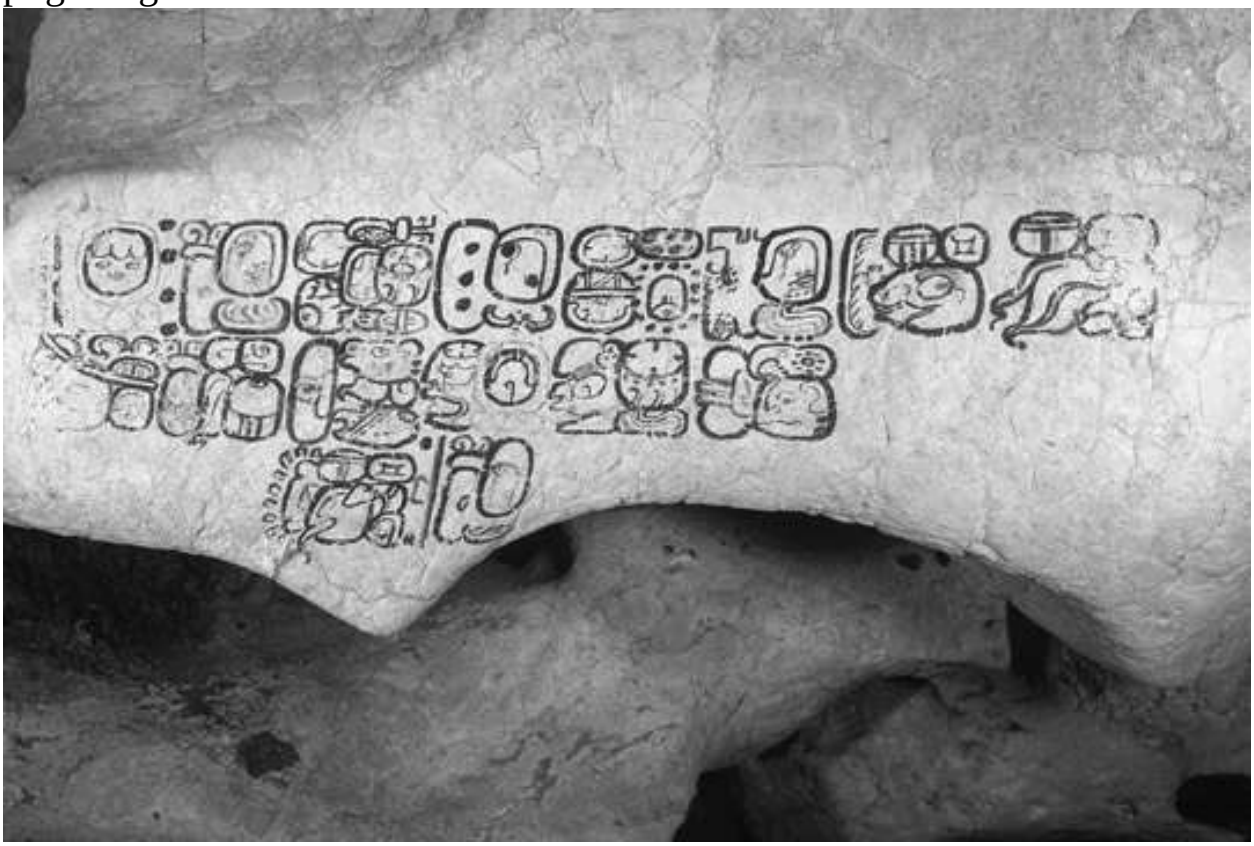

Figure 2.22. Hieroglyphic panel inside the Naj Tunich Cave north passage (Text 82). It mentions the fire ceremony by Tun Yohl K'inich, a ruler of Caracol in 774. It also refers to an earlier event in 745 with the participation of Yax Mo' Sutz' (First Bat Macaw), a noble from Calakmul. This was one of the most aesthetically pleasing paintings in Naj Tunich. It was smeared beyond recognition in 1989. Photo courtesy of Chip Clark.

Figure 2.23. This painting (11) shows a figure holding a severed head with loose hair painted in broad streaks. The loose hair identifies the status of the victim as that of a war captive. The associated two-glyph text (with a glyph of God K as the first) suggests that the ritual decapitation was carried out in Naj Tunich Cave, Petén, Guatemala, as part of a k'atun anniversary celebration. Photo courtesy of Chip Clark.

Detailed analysis reveals that the figurative paintings were executed by several artists. The cave paintings portray facets of ceremonial life in Naj Tunich during the late classic period. They include ritual decapitation (figure 2.23), burning copal, dance and musical performance, rites of passage, and a sexual scene. The Hero Twins are represented on two occasions, and perhaps they were addressed in the cave rituals (figure 2.24). The paintings also refer to the sacred ball game, and three more painted scenes depict ball courts in Naj Tunich, underscoring the paradigm that ball courts and the underworld were in some sense synonymous. Paintings of *aluxo'ob* (dwarfs; figure 2.25) allude to their role in Maya mythology. Dwarfs, hunchbacks, and other deformed individuals were not subjects of derision among the Maya but were looked upon as possessing great supernatural powers. Dwarfs of Maya mythology were considered messengers from the underworld, enabling

human contact with supernatural beings. Dwarfs were thought to inhabit, together with frogs, scorpions, and water-serpents, underworld entrances—that is, caves, cenotes, and labyrinths. Loltun Cave in Yucatán was said to be inhabited by *pixans*, the spirits of ancient inhabitants. In Yucatán Balankanche Cave, the Maya left miniature *metates* for the dwarfs as offerings (see figure 2.39).

Figure 2.24. Hunahpu stands next to a canonical representation of the ball court (as a three-stepped structure) dressed in a hunter's head and jaguar-skin skirt, an outfit also worn by ball players on three markers from Copan ball court. Since the actual Lowland ball courts lack such steps as shown here, the scenes may represent the sacrificial ceremonies that followed the game, when a captive was rolled down the steps of the symbolic ball court as a ball (panels from Yaxchilan Temple 33). Above the ball is the number 9, which has an underworld significance (painting 21). Naj Tunich Cave, Petén, Guatemala. Photo courtesy of Chip Clark.

Naj Tunich Cave's figurative paintings are largely concerned with ritual performances, not with pomp-like surface art (for example, on stelae). The consistently plain costumes worn by the cave figures suggest a downplaying of rank distinctions. An altered state of consciousness in the dark cave

environment may be also responsible for a certain loss of inhibition. The figurative paintings also convey the idea of the cave as an Xibalba-like domain, identified with a sacred ball court in the interior of the earth. Considering that the cave's balcony area (near the entrance) was in the preclassic period a burial place for high-ranking ancestors (see figure 2.6), Naj Tunich must have been an especially important cave for communicating with their spirits and conjuring them in cave rituals.

Figure 2.25. This scene (68) shows a corpulent lord passing a hemispherical vessel (a gourd cup) with a liquid offering to a kneeling dwarf. The scene is accompanied by the glyphic text, showing the emblem glyph of the city Ixtutz. This painting, as well as others, demonstrates that the Naj Tunich paintings have a thematic correspondence with Maya vase paintings. Naj Tunich Cave, Petén, Guatemala. Photo courtesy of Chip Clark.

Cueva de Jolja (Joloniel Cave) is located in the verdant hills of the Chiapas Highlands in Mexico at the headwaters of the Tulija River. It's not far from Palenque and was probably associated with this great city. Three neighboring caves here have configurations reminiscent of the Cross Group of Palenque, which is thought to represent the three mountain caves from which the Palenque triad of gods was born. Cueva de Jolja could have been their

precursor. The main cave has both a wall mural and several inscriptions dating from the early classic period, making them the oldest known cave paintings in the Maya area. A mural near the cave entrance (Group 2) includes two elaborate figures, one of them holding a torch and another with white face-painting and a headdress, most likely performing a *k'atun* ending ceremony (figure 2.26). The figures are painted black, which is indicative of ceremonial use. The figures are flanking what appears to be the 9 Ahaw sign, which could date this *k'atun* ending ceremony to December 14, AD 297. The glyph compares well with the so-called Giant *Ahaw* Altars of Caracol, Toniná, and Tikal. Giant *Ahaw* Altars are drum-shaped stones decorated with the *ahaw* date of a specific *k'atun* ending. These period-ending hieroglyphs are thought to have been painted by people from the ancient site of Sib'ikte, located about thirty kilometers south of Cueva de Jolja. It is possible that the panel is related to the establishment of the Sib'ikte polity, which dominated the area around the cave.

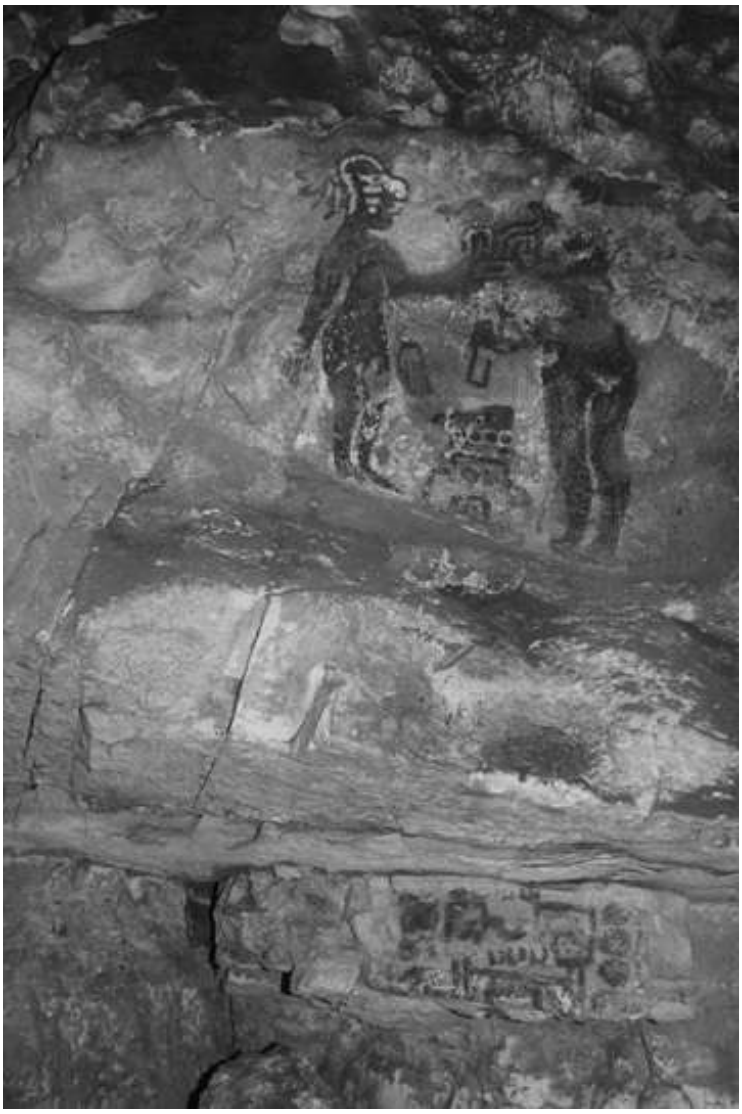

Figure 2.26. Polychrome painting in the entry area of Cueva de Jolja (Group 2), Chiapas, Mexico. On the top there are two figures rendered in black, and the right figure holds a flaming torch. Between the figures is a 9 Ahaw symbol. On the bottom is an image of the Earth (Witz) Monster combined with the 9 Ahaw symbol.

The glyph panel below the mural includes the Earth (*Witz*) Monster, with *kawak* markings, and again the number 9. The image of the Earth (*Witz*) Monster, with its split head, recalls the creation of people by gods from corn dough in a cave within the sacred mountain. A similar image of *Witz Mountain* with *kawak* markings appears on the bottom of Stela 1 from Bonampak (figure 2.27). The number 9 may be part of the calendar day; it may also signify the nine levels of the underworld.

Below the scene is a passageway leading to a small chamber, which the

Maya probably used for period-ending ceremonies. Modern Ch'ol Maya have placed three wooden crosses in the chamber, which they utilize for Day of the Cross and rain ceremonies (see figure 2.50). Farther in are at least five other glyphic inscriptions. One, Group 5, framed in bright red cartouches, is dated to January 7, AD 477, and includes the glyphic phrase "He entered the cave," using a *ch'e'en* glyph and related to a ruler of Sib'ikte polity.

Figure 2.27. Detail from Bonampak Stela 1 showing Yax-Hal-Witz (First True Mountain) with grape-like kawak markings. The Maize God emerges from a cleft in the top of the mountain. In a cave inside this mountain, gods fashioned human flesh out of maize dough. Precious seeds were located inside a stone (thus the kawak markings) in the heart of the mountain cave. The kawak is likely the ancient name of Cueva de Jolja. Bonampak, Chiapas, Mexico.

Another remarkable panel (Group 6, dated to December 10, AD 435; figure 2.28) includes a *ch'e'en* glyph in early "impinged bone" form (see figure 2.3). The inscription relates to the celebration of a *bak'tun* (four-hundred-year period) ending. The main protagonist is Mam-Noh-K'ab-Chaahk, who arrived at the cave 220 days earlier, on May 12, AD 435. Also found in Cueva de Jolja is a round stone, which evidently served as an altar during ceremonies.

Figure 2.28. Group 6 painting in Cueva de Jolja (Chiapas, Mexico). The right column (third from the top) includes a ch'e'en glyph (impinged bone; figure 2.3), meaning a cave. The bone in this sign also may relate to the Maize Goddess, the first woman, whose bones in a cave became the source of corn seeds. The panel is painted over with a semitransparent red pigment. The red painting over these inscriptions is reminiscent of classic period paintings of ritual objects, tombs, and skeletons using cinnabar, a bright red color of sunrise and resurrection.

I hiked to Cueva de Jolja from the village of the same name, accompanied by four local Maya on a very hot day in March 2010. It took us over an hour to reach the cave's mouth, on a steep path that was improved by stone stairs, evidently to facilitate the yearly pilgrimage of the villagers. Next to the mouth of the cave is a large entrance to another cave, from which cascades the source of the Tulija River. Just a few steps up is the gated entrance to the cave, which is locked to protect the paintings from vandals. The cave was

easily negotiable, and I was impressed by the clarity of the well-preserved paintings.

The nearby and almost inaccessible Yaleltsemen Cave has the painting of another Sib'ikte dignitary's arrival. It seems that the lords of Sib'ikte had a remarkable predilection for cults at the subterranean sites. The text in another Highland site, Toniná, dated AD 727, indicates a hostile takeover of the Sib'ikte polity by the Toniná.

Painted Cave is located in the Sibun River karst, fairly close to the Belize Coastal Highway. This small cave with two entrances has several vernacular paintings, rendered mostly in red. A clear painting of a jaguar (figure 2.29), a symbol of royalty, is also accompanied by what appears to be the simplified glyph for *ahaw*. The cave has also an unusual human face pecked into a stalactite, and a ritual deposit containing freshwater snails, freshwater crab claws, charcoal, shards, speleothem fragments, and conch shells. Bat Cave 2, located in the same neighborhood, has about ten carved human faces, again all in the twilight area of the cave.

Figure 2.29. Painting of a jaguar in Painted Cave, Sibun River Karst, Belize.

Actun Dzip is a small cave near the village Blue Creek in southern Belize's Toledo District. It contains many simple charcoal paintings, although the style is very different from that of other Maya cave paintings and seems to be unique to this cave. Some of the images are geometric designs (perhaps inspired by textiles) while others are stick figures of monkeys, scorpions, and the like. A death head and several splayed anthropomorphous figures are also depicted (figure 2.30). Some of the offerings reportedly found here include a jade head and obsidian blades.

The single-chambered Dzibichen Cave in central Yucatán has a large number of pictographs painted on the walls with charcoal, most likely of late postclassic origin. Among those is a remarkable painting of a deity who appears to be the long-nosed god Chaak surrounded by images of several serpents, which are associated with lighting. The paintings were executed near an underground pool of water, which is in perfect harmony with the role of caves in Maya culture. The image of the rain god Chaak seems to show an affinity with deity figures in the late postclassic Madrid Codex. Other motifs in the mass of drawings include a symbol of the vulva (again connected with the life-giving water in the cave; see figure 2.18). There are also motifs of several "diving jaguars." These are often seen in postclassic Yucatán iconography, as on temples in Coba, Tulum, and Sayil, and in paintings in Xel-Ha. It is possible that these "diving jaguars" may represent the Sun Jaguar God diving into the underworld at sunset.

Figure 2.30. An upside-down and splayed anthropomorphous figure in Actun Dzip, Toledo District, Belize. The images seem to resemble paintings from the Fremont culture of the American Southwest (obviously this is fortuitous). This upside-down stick figure resembles what is called a dead shaman in Canyon de Chelly, Arizona. Alternatively, the image could be cognate with a sculpture of the Jaguar Diving God, which often appears on the entablature of postclassic temples in, for example, Coba, Sayil.

Other caves in Yucatán have a few preserved paintings, probably from the classic period. These include caves in the vicinity of Oxkutzcab, such as Gruta Loltun, Acum, and Actun Ch'on. In well-known Gruta Loltun, there are petroglyphs, including "stone flowers" and negative and positive prints of hands in black and ochre. Neighboring Actun Ch'on in the city of Oxkutzcab was reported to have interesting paintings as well. The main panel, located in a side tunnel, was described to have three figures that could be interpreted as a presentation of a prisoner to a dominant noble figure on the left. The largest system of caves in Yucatán is Grutas del Calcehtok, near the ruins of the

classic period city of Oxkintok. There are some eighty caverns in the surrounding areas of the city, and one of them is Actun Usil, which has geometric paintings on its ceiling, including a *k'an* cross, a creation symbol.[11]

A large number of caves also honeycomb the ridges of Sierra de Chimaja in the Guatemalan state of Alta Verapaz far south of Yucatán. The most important ritual caves in this area are the Cuevas Candelaria complex, where, rather curiously, no paintings have been yet discovered. Slightly west of here is Actun B'omb'il Pek Cave with important paintings of mythical animals (figure 3.13).

Artifacts

Offerings

The Maya left many artifacts in their caves, most of them as offerings to seek favor with the gods. They include human and animal bones; pottery (see figure 3.33); censors for burning incense (see figure 2.39), *metates* and *manos* (figure 2.31); figurines (figure 2.32); carved blades for bloodletting (see figure 3.42); ax heads (see figure 3.34); serrated chert or obsidian blades used for sacrifices (see figure 3.20); and rock crystals, pyrite, and charred incense resin. Less-frequent articles included carved bones, whistles (ocarinas; see figure 3.53), stone net-weights used for fishing, ceramic drums, and statuettes (see figure 3.44). The presence of a ball player figurine, found in Actun Chamona, Belize, again links this game with the underworld. Ceremonial fires in caves burned copal incense, speleothems, and pottery shards or old incense burners, evidently to release the vessels' sacred powers. For the Lacandon Indians, such a "death of the vessels" is a metaphor for burning the bones of their lords. Many fire pits in these caves still contain burned pottery shards and speleothem fragments. Finding rock crystals in ritual caves points to the use of the caves in shamanistic rituals.

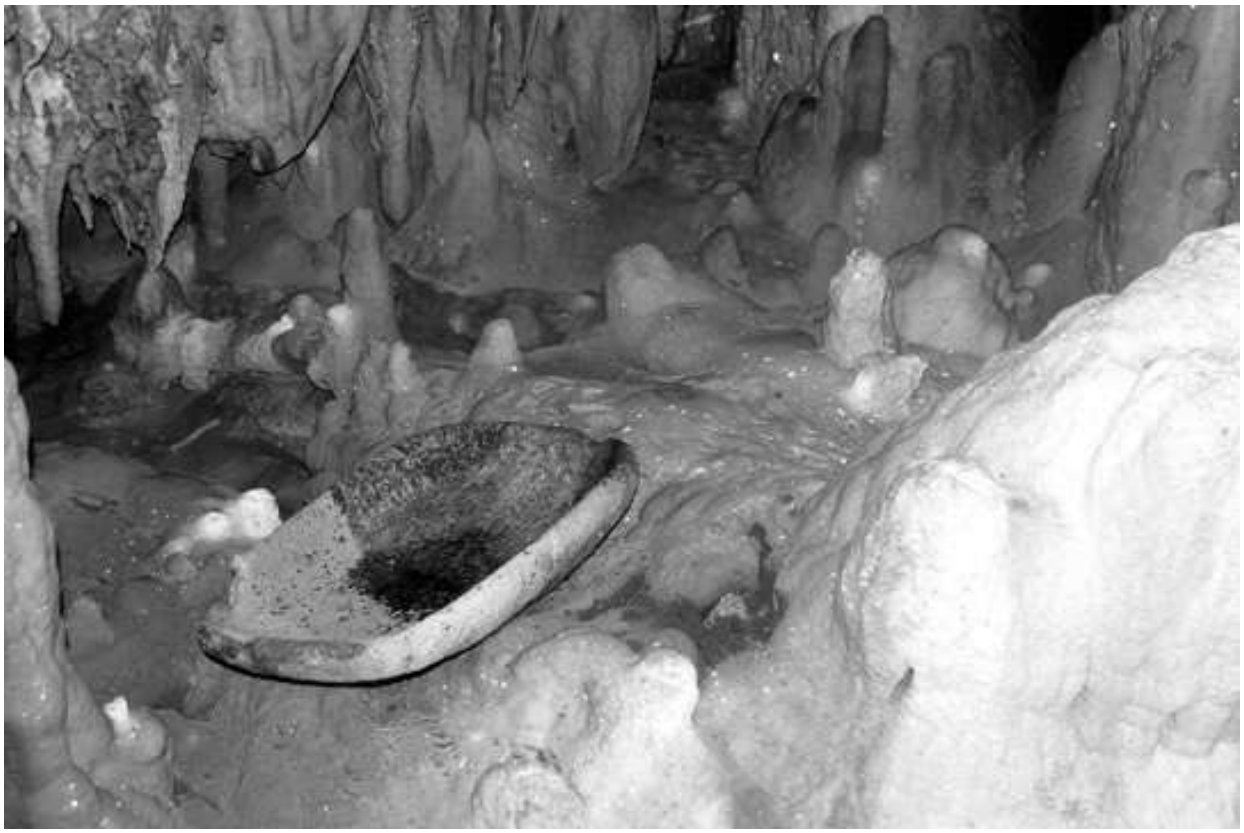

Figure 2.31. Stone metate for grinding corn deposited in Actun Tunichil Muknal, Belize. One metate found in another cave weighed almost two hundred pounds.

Pottery was the foremost offering in the caves. The presence of painted pottery also points out the elite usage of a cave (see figures 3.10 and 3.40). The Maya sometimes placed ceramic offerings in almost inaccessible areas, high on ledges, for example, which could be reached only by a difficult climb. There is no known reason for such an effort; perhaps it was a part of an arcane ritual. Vessels were ritually destroyed or at least mutilated (some punctured with holes) before depositing, some elaborately hidden in small niches, crannies, or alcoves. Mutilation of the vessels destroyed their spirit and made them unusable for this world. Ceramic vessels were ritually smashed at certain loci in the caves, which now have large piles of shards. A central column in one rock shelter in Belize (Old Man Cave, Roaring Creek Valley) is encircled by mounds of shards of broken vessels. Some of these pottery pieces have become encrusted with a layer of calcite, testifying to their age. Some of the vessels still contain ashes from burned offerings of grain, corn, and copal incense.

Figure 2.32. Wooden figurine, an idol from Xmuqlebal Xheton Cave in southern Belize (detail).

Artifact is now in the Museum of Belize, Belize City. Photo courtesy of Jamie Awe, Belize Institute of Archaeology, Belmopan.

Freshwater snails, associated with the sacred concepts of water, fertility, birth, and death, represent other cave offerings to the underworld powers, and were often left in bowls. Cacao seeds were recently found as an offering in a mortuary cave in southern Belize, close to the late classic period town of Muklebal Tzul. Cacao was apparently an integral component of many rites of passage in addition to being a beverage of the elite and a currency. Its presence in cave burials indicates that it was either an important possession of the deceased or was supposed to provide ritual sustenance during their passage to the underworld. Cacao beverages were conceived by the Maya as blood, the favored nourishment of the gods. A *metate* and a *mano*, used for grinding cacao beans, have been found in a small shrine in Actun Chanona (see figure 3.51).

The Maya of Muklebal Tzul also worshipped in natural caves nearby. Many artifacts were recently recovered in Xmuqlebal Xheton, located about

one kilometer from the city's core. A unique find was a 23-centimeter-long wooden figurine, depicting a male clad in a belted skirt or loincloth and wearing a turban headdress (see figure 2.32). Similar headdresses are depicted in iconography from Copan and Pusilha located approximately fifty kilometers southwest. This particular figurine was found in a dark area, secreted in a niche, so it may have been associated with a shamanistic individual and used in private ceremonies, playing a role in healing and illness. Perishable figurines like this must have been once fairly common in cave rituals, serving as sacred idols by depicting gods or ancestors.

The English seventeenth-century traveler Thomas Gage reports an encounter with a wooden figurine in a cave in Alta Verapaz, Guatemala:

> The idol [was] standing upon a low stool covered with a linen cloth. The substance of it was wood, black shining like jet, as if it had been painted or smoked; the form was a man's head unto the shoulders, without either beard or mustachios. His look was grim with a wrinkled forehead and broad startling eyes (Thompson J. 1958).

As they were made of wood, the idols either suffered the ravages of time in a humid climate or were destroyed by the Spanish as pagan idols.

Another important finding was made in a mortuary cave near the city of Uxbenka, in the Toledo District of southern Belize. Here were found the remains of a wooden canoe, apparently from the early classic period, and originally placed on top of a masonry elite tomb (figure 3.55).

Cities and Caves

Many of the largest Maya cities were strategically oriented on or around caves. As noted earlier, caves are usually formed in karstic terrain as water dissolves the limestone bedrock. The Guatemala Highlands, however, are a non-karstic, volcanic terrain, where caves normally do not occur. Caves played such a pivotal role in the Maya religion that Highland inhabitants felt compelled to create artificial caves. The archetype of these artificial caves is Seven Caves, excavated under the Pyramid of the Sun in Teotihuacan. Artificial caves under the plaza of the postclassic site of Utatlan in the Guatemala Highlands also exist. Numerous other sites in the Highlands contain artificial ritual caves, among them La Lagunita and Mixco Viejo. Artificial caves occur as far east as Honduras, and one has been found in the central Mexican city of Xochicalco, making them a pan-Mesoamerican

phenomena. Most were constructed as early as the late preclassic period, making their building an ancient custom.

On the sixth terrace of Toniná, Chiapas, Mexico, an altar in the shape of *Witz Mountain* with a cave entrance was modeled in stucco and masonry (figure 2.33). Rituals were performed at this symbolic entrance, just as they were in real caves. Temple 22 in Copan, Honduras, was built by its eighth-century king Waxaklajuun Ub'aah K'awiil as a symbolic *Witz Mountain* with its creation cave. *Chultuns*, originally underground water reservoirs shaped like reverse funnels, may have been used as artificial caves, complete with burial sites, and as household shrines. Two *chultuns* under the Petén, Guatemala, city of Topoxte were evidently dug out in the preclassic period and used for ritual purposes, including elite burials. An artificial cave with sacrificial offerings, dug by the preclassic Maya, was discovered recently in the preclassic city of Nakbé, in northern Petén. It may actually predate the artificial caves of central Mexican Teotihuacan.

The Maya belief that water originates in caves is demonstrated in the building of an intricate replication of a water-bearing cave in the 1,100-year-old Maya site Muklebal Tzul in a mountainous region of southern Belize. Under the site's plaza, the Maya constructed an artificial cave with a small, plaster-lined basin for collecting water. Water, generated in a nearby spring, runs in an underground conduit and falls as a small waterfall into the basin. The small quantity of water yielded by such a construction argues against its use as a utilitarian water source. It seems that this project was intended to replicate a sacred water-bearing cave in miniature.

Figure 2.33. Temple of the Earth (Witz) Monster with an artificial cave entrance on the sixth terrace of Toniná, Chiapas, Mexico.

Many other caves are also located under major Maya cities. Maya cities incorporated caves and cenotes as points charged with sacred meaning around which the city was laid out (e.g., Dos Pilas, Yaxchilan, Chichén Itzá, Mayapan, and Xcoch). Specifically, Dos Pilas has twenty-two caves, and Oxkintok eighty, in addition to a huge cavern system nearby (Calcehtok Cave). Many cities incorporated cenotes in their midst (e.g., Chichén Itzá, Dzibichaltun, Piedras Negras, Le Mar, and Chincultic). While the cenotes certainly served as sources of water, many had a deep religious significance (in Chichén Itzá, Mayapan, Chac, and Xcoch, for instance). If a pyramid was placed over an actual cave, its surface architecture became an extension of the sacred landscape. Thus, many Maya temples were built above caves, so these ritual places could be validated and energized by the caves.

The main pyramid, El Duende, of the site Dos Pilas (Two Springs) in Petén, Guatemala, was built above huge Dragon Cave, which also incorporates an underground cenote. The tomb of Ruler 2 (Itzamnaaj K’awiil) under pyramid L5-1 on the main plaza replicates an ancestral cave and was

called Dragon Water Place. A long, underground passage called Rio El Duende connects caves under El Duende and the Bat Palace. In the rainy season, a large subterranean river issues from Dragon Cave; its roar can be clearly heard on the central plaza. The roar of the water issuing from the cave signaled the onset of the rainy season, a powerful symbol of the power of the king over the infernal forces. Dos Pilas became a major site late, founded by an offshoot of the Tikal dynasty in about AD 625. The presence of much older artifacts in the caves suggests that the kings of Dos Pilas appropriated a long-established sacred site for the purpose of founding the new city, which also happened to be strategically located close to an important trade route.

Gruta de Chac (or Chaak) is a deep-water cave located in the hill region of northern Yucatán, close to the late classic site of Sayil. Early classic central Chac grew close to the cave entrance, most likely because of the water source within the cave. Surface water practically does not exist in these parched hills of Yucatán in the dry season. On the other hand, Gruta de Chac (figure 2.34), with its underground water source, must have been an important pilgrimage site from the early classic period, perhaps similar in importance to the sacred well in Chichén Itzá. A vertical descent through a 50-meter-deep shaft leads to a narrow, twisting, 430-meter-long passage that terminates in a chamber with a permanent water pool. Near the cave mouth is an early classic ceremonial center with nonresidential architecture, including a stone stela platform, dance platform, and plaza group. The presence of religious architecture suggests the cave’s sacred nature. It was evidently devoted to a cult of the rain gods, as its name suggests. In 1975 Sir Eric Thompson observed:

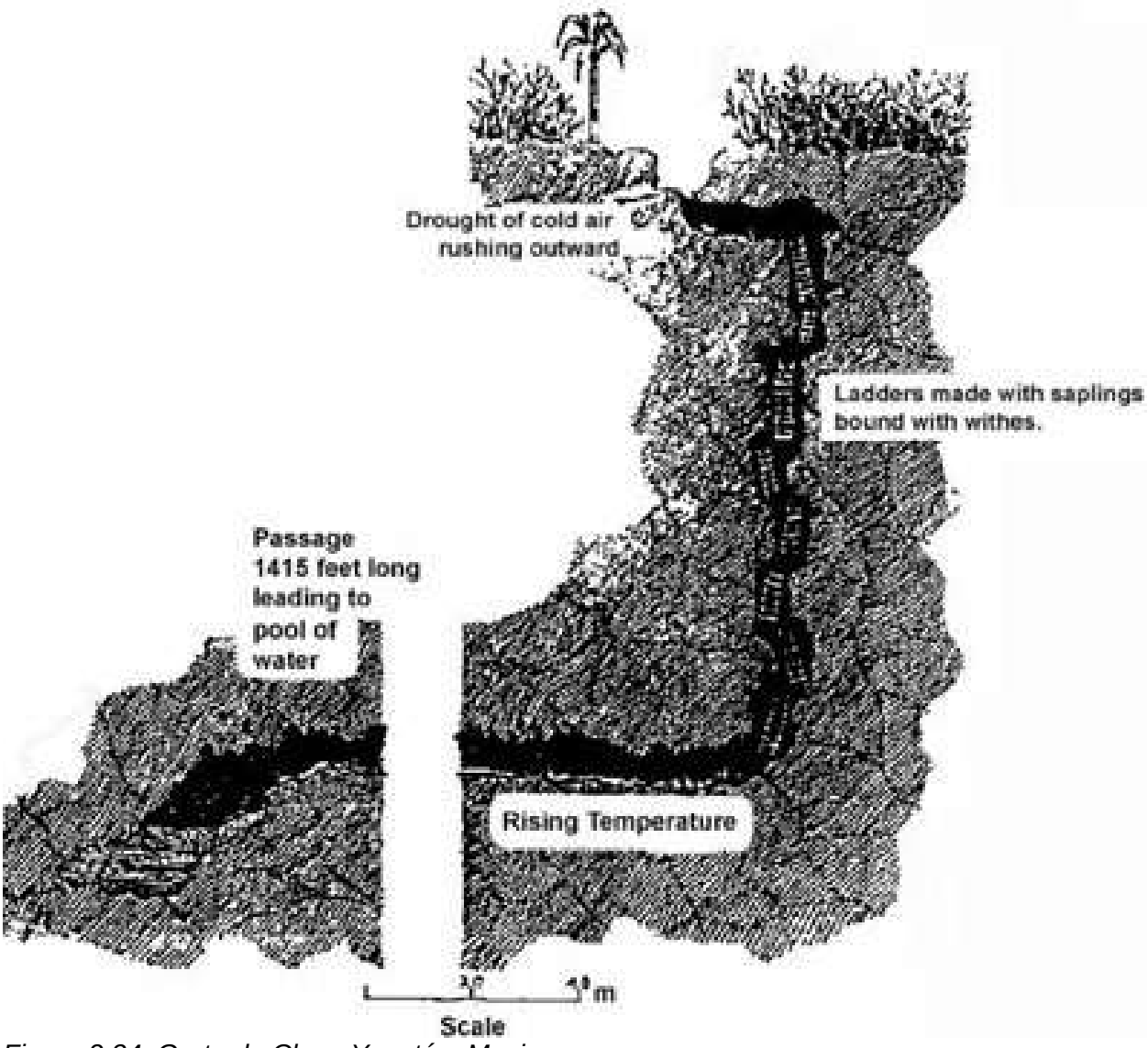

Figure 2.34. Gruta de Chac, Yucatán, Mexico.

> In the ancient times this cave was primarily devoted to worship of the rain gods (Chaaks), as its name implies; that it was chosen for that cult because the difficult approach would keep out women and other intruders; that these handsome and probably imported polychrome jars were for use in the cult and were replaced by less ostentatious jars at a later date; that at the end of given periods, the jars were ritually broken and their fragments piled up; and that if water for ordinary purposes was taken from the pool, then it was probably brought up, as in Stephen's day, in gourds not in jars (Thompson J. E. S. 1975).

These enigmatic and unique Chac polychrome jars, made from clay found within the cave and painted black and red on orange slip, are unlike any other pottery found in a Maya area (figure 2.35). They were used only for collecting water for cult purposes. They were ceremonially broken inside the

cave and the shards piled near the pool of water or inside the constricted passage as a part of rituals related to the worship of the rain gods. As Thompson states, the jars were rarely taken out of the cave, and shards of these polychrome jars are found only in a handful of other Yucatán sites with cenotes that are associated with the cult of the rain gods (such as nearby Xcoch). Sculptures of *sapo* (toads), also connected with the rain gods, were also recovered from the cave.

Figure 2.35. Painted ritual water jar from Gruta de Chac, Yucatán, Mexico, in the collection of the museum at Dzibichaltun, Yucatán, Mexico.

Initially, settlement around the cave grew due to its dependable water supply, but in the early-to-middle classic period, access to the cave became more restricted and strictly controlled. At the same time, ceremonial architecture grew around the cave entrance, and *chultuns* were built in the Chac settlement to provide for utilitarian water. This was happening at the beginning of the fourth century AD, when Gruta de Chac became highly sacralized and associated with Chaak's cult. Archeological evidence suggests

that in the fourth century, the Chac settlement came under the strong influence of the central Mexican “super power” Teotihuacan (as did, for example, Tikal, Oxkintok, Uaxactún, Copan, and Kaminaljuyu). So the question arises whether the cave cult of Gruta de Chac was somehow associated with the arrival of the Teotihuacanos.[12]

Yucatán’s Izamal pyramids also have an interesting association with a cave cult. According to one legend, the main Izamal pyramid, Kinich Kak Mo’, is the burial place of the head of Itzamnaaj, Old God D of the classic period Maya. Itzamnaaj’s right hand was buried in the second Izamal pyramid, Kabul, and his heart in the third, Itzamatul. Every day Itzamnaaj, in the form of his avatar, Celestial Bird (Principal Bird Deity), would descend Kinich Kak Mo’ (dedicated to the Sun God) to pick up offerings. Is this related to the fact that vultures were descending to the pyramid to devour the bodies of sacrificial victims? Interestingly, there is a limestone grotto (yet unexplored) entombed in the Kinich Kak Mo’ pyramid, validating its sanctity.

The pyramid El Osario (High Priest Grave) in the southern and older part of Chichén Itzá has a shaft leading to a cave with a rich burial site. This seven-chambered cave, probably representing the legendary Seven Caves of Creation, was reached by an artificial shaft inside the pyramid. Inside were seven graves filled with bones and a wealth of sacred objects, including ceramics, bones, rock crystals, jade, and shells. This pyramid must have had a very special meaning for the Maya; it was a model of primordial *Kan Witz* (Snake Mountain), with two serpents flanking its stairway and a seven-chambered cave underneath where the civilized world would have originated.

Figure 2.36. The Sacred Cenote, or Well of Sacrifice, Chichén Itzá, Yucatán, Mexico.

The raison d'etre for Chichén Itzá, located in the parched landscape of northern Yucatán, was the existence of its two cenotes. Cenote Sagrado (Sacred Cenote; figure 2.36) was the religious focus of this large city and a goal of pilgrimages. The cenote was used ritually between the sixth and sixteenth centuries. The second cenote, Xtoloc Cenote, was a source of drinking water. Cenote Sagrado is connected by a 271-meter-long and 9-meter-wide *sak be* with the main plaza and was the locus of religious rites, including human sacrifices; it was a portal to the underworld. This cenote is about thirty-five meters in diameter and is encased within vertical limestone walls rising to a height of twenty meters above a surface of green, murky water. On the edge of the cenote is the ruin of a small temple with a platform, which was used for the deposition of offerings. The first Yucatán bishop, Diego de Landa, who stood on the edge of this great well in the sixteenth century, recalled its awesome secrets as told by his Indian informers:

> Into this well they have had, and then had, the custom of throwing men alive as a sacrifice to the gods, in times of drought, and they believed that they did not die though they never saw them

> again. They also threw into it a great many things, like precious stones and things they prized. And so if this country had possessed gold, it would be this well that would have the largest part of it, so great was the devotion which the Indians showed for it (Landa D. de. 1941).

Indeed, when the cenote was dredged in the twentieth century, the investigations yielded a large number of artifacts, including jewelry, pottery, copal, and human bones, evidently from sacrificial victims (figure 2.37). The majority of the remains recovered from the cenote were those of young males. Some of the bones show marks of violence (skulls with burn marks, hack marks on the ribs from the skinning of bodies), confirming that some victims were thrown into the cenote already dead or at least mutilated. In addition, the bones of various animals were also found, including those of deer, jaguars, dogs, and turkeys, indicating that they accompanied humans on their journey to the underworld. Among the artifacts found were items made of gold, even though this metal is not found in the Maya area and must have been imported in postclassic times from Colombia and Panama. A remarkable find was the golden soles of sandals, evidently placed on the feet of sacrificial victims just before their death, since they showed no sign of wear. Other interesting finds included classic period jade statuettes (late seventh and early eighth century) originating from the distant Maya cities Piedras Negras and Palenque, or perhaps taken from looted tombs or as war booty. Some votive items were made using turquoise, which must have come via long-distance trade from the north and the American Southwest.

Figure 2.37. Jade offerings recovered by divers from the depths of the Sacred Cenote, Chichén Itzá, Yucatán, Mexico. The offerings are in the collection of the Museo de Anthropologia, Merida, Yucatán, Mexico.

Cenote Sagrado had a more than four-meter-thick layer of blue silt at the bottom. This was identified as Maya Blue, a famous, almost indestructible pigment that the Maya used for painting ceramics and sculptures. The ancient Maya created this pigment as a part of human sacrificial ceremonies by burning copal incense with the mineral palygorskite and the leaves of indigo plants. The blue mud in the cenote most likely came from the bodies of sacrificial victims, who were painted blue before being tossed into the cenote.

Chichén Itzá Cenote Sagrado is not the only cenote in Yucatán that has yielded its dark secrets. Many other cenotes (such as Xcalcah in Dzibichaltun and Cenote Sagrado in Punta Laguna) were used for ceremonies by the ancient Maya, but the majority of them await exploration.

Balankanche Cave is located in a pocket of virgin jungle only about nine kilometers from Chichén Itzá. The cave is a labyrinth of interconnected chambers. One narrow corridor leads to the central dome, the main cave sanctuary (figure 2.38). This dome has huge stalagmites and stalactites meeting in the center, growing from the floor to the high ceiling. This inner

sanctum is shaped like a perfect model of the Maya cosmos: the domed floor as a miniature mountain rises to the base of a huge limestone column, a model of the Maya *Wakah-Chan* (World Tree) that ascends to the arching dome of the grotto ceiling. Pots and incense burners with the faces of the gods Chaak and Tlaloc were placed around the tree, most of them still remaining. The goggle-eyed, Mexicanized Tlaloc faces, some with fangs, on the braziers are remarkable (figure 2.39). Near one wall, a craggy hole leads to another dome with a silent pool of *suhuy ha'*, or virgin water. This small cenote is reportedly connected with Cenote Sagrado in Chichén Itzá, or at least it shares the same water table. The miniature *metate* found here were most likely offered to *aluxo'ob* (dwarfs), the intermediaries between rulers and the underworld. Another small group of artifacts was found in a rather inaccessible Group 4 chamber surrounding the limestone stela. The artifacts here included several ceramic and limestone censers, partial *ollas*, jade beads, and a hearth with a burned offering in the front of the stela. The artifacts found in Balankanche Cave are from the preclassic and postclassic periods, many of them placed here in the ninth century. In another part of the cavern are openings to the world above, through which giant ceiba trees drop their roots down to reach for moisture. Thus, the sacred ceiba spans three worlds: the underworld, the world of people, and the heavens (see figure 1.2).

Figure 2.38. Central dome of Balankanche Cave, Yucatán, Mexico, with a speleothem column representing the Tree of Life in the center and surrounded by ceramic offerings.

This ritual cave was discovered in 1959 by guide José Humberto Gomez. As soon as archeologists started to explore the cave, a young *h-men* (native priest) named Romualdo Hoyil from the nearby village of Xkalakoop introduced himself and requested permission to conduct a special religious ceremony to propitiate the god Chaak and the guardians of the cave, whose sacred precinct was being violated. If the forces were not propitiated, terrible consequences might befall the whole population. The *h-men* insisted that the ceremony be conducted immediately and that all the archeologists, the violators of Chaak's *adoratorio* (shrine), take part in the entire ritual. In addition to Hoyil, thirteen assistant priests were also recruited for the occasion. Hoyil collected the necessary offerings, which included thirteen hens, one turkey, thirteen black candles, two bottles of anise, thirteen jars of honey, copal incense, tobacco, corn, cloves, cumin, and other spices. The assistant priests were paid thirteen pesos each, and Hoyil received fifty-two pesos for the entire ceremony. The number 52 had special meaning for the ancient Maya, representing the number of years in the cycle of a calendar

round. Hoyil further announced that the ceremony would require twenty-four hours to complete, and no one would be allowed to leave the cave until the ritual was over. It is hard to imagine what the atmosphere in that horribly humid cave would be with so many people inside burning candles and incense. The priests lit the candles in a circle around a huge stalactite and chanted prayers intended to placate Chaak and the *balams*, the cave guardians.

Figure 2.39. Incense burners with a Tlaloc face and miniature metates placed in a niche flanked by stalactites. Balankanche Cave, Yucatán, Mexico.

> You then, my Lord! Thrice be honored, my Lord. You I humbly address—oh my Lord. I am presenting my word to You then, my Lord. K'ulu Balam, greatly named by word, thrice be honored my Lord, to You I give my word. So the warmth be cooled, my Lord, thrice be honored.

The chanting droned on for hours, through a series of twenty-seven rites. At the conclusion of each rite, the priests paused long enough to drink a thick, sweet beverage made from corn gruel and honey before the incantation resumed. This otherwordly scene of sweating, chanting Maya illuminated by candlelight in the clouds of smoke from burning incense surely resembled the ancient rituals performed in this grotto 1,200 years ago. During the last part

of the ritual, seven small boys ranging in age from four to eight years were brought in to serve as imitators of toads and frogs, the earthly messengers of the rain god Chaak because croaking frogs and toads announce the coming of rain. The children had been trained in the *Ch'a-Chaak* ceremony and had practiced in Yucatán beforehand. Through the remainder of the night they accompanied the priests' chants with a chorus of high-pitched croaking. At the end of the ceremony, every participant was given branches freshly cut from bushes to sweep out evil spirits from the cavern. As a final gesture, the *h-men* symbolically sealed the cave entrance with a chant for a period of forty-eight hours. If anybody reentered before then, he warned, they would risk the vengeance of its guardian spirits. Outside the cave, the villagers welcomed the exhausted participants and prepared for them a traditional Maya banquet, complete with *balché*, an intoxicating brew meant to bring the participant close to the gods. The deities whose memory haunted the cave were thereby appeased, and surely Chaak brought the deluge of rain that came to the parched Yucatán landscape just after the ceremony.

In building the postclassic city of Mayapan (Yucatán), the Maya admirably adapted the city's aesthetic, social, and religious aspects to the karstic landscape. The settlement was organized in relation to more than forty cenotes. Many of the cenotes were deliberately enclosed inside a nine-kilometer-long city wall, while one of the most dramatic cenotes, Sac Uayum, was deliberately left outside. The course of the great wall was determined by embracing or excluding certain cenotes. Sac Uayum had a fearful reputation of being very dangerous, with a monstrous feathered serpent living in it. The legend may provide a reason for its exclusion from the city. Sac Uayum sits on the south side of the city, in the direction of Xibalba and *at nahol* (the nadir). The cenote Itzmal Ch'en, one of the most sacred in Mayapan, is located in the extreme eastern part of the city. This cenote still is the locus of an annual *Ch'a-Chaak* rain-bringing ceremony by the local people. The location of a sacred cenote in the east, in the direction of the sunrise, and of an evil cenote in the south, leads to the idea of a quadripartite cosmogram. Perhaps the whole site, not just the ceremonial center, participated in the cosmogram.

The sacred hub of the city was the nine-terraced Pyramid of Kukulcan. The nine terraces had an association with the nine levels of Xibalba. The Temple of Kukulcan is a radial temple and exhibits four roughly symmetrical

stairways descending on the four sides of the structure. It is known that radial temples (as in the Temple of Kukulcan in Chichén Itzá, and the Temple of the Seven Dolls in Dzibichaltun) were ritually associated with calendrical termination rituals, like *k'atun* endings and New Year ceremonies. The Mayapan Temple of Kukulcan acted as an axis mundi that united heaven, earth, and the underworld. A stucco panel, discovered at a substructure attached to the southeast corner of the pyramid, portrays a headless skeleton with a niche for inserting the severed heads of victims (figure 2.40). This death imagery confirms that this was a place of sacrifice. This corner of the building is closest to the cenote Ch'em Mul, with a natural tunnel leading from the cenote under the main Temple of Kukulcan. The cave under the temple was probably a symbolic place of origin and associated with Xibalba. It also probably determined the placement of the pyramid (similar to a pyramid in Xcoch, Yucatán). The Temple of Kukulcan represented the sacred Maya mountain, and the underworld was present in the site cosmogram in the form of the natural cave under the pyramid.

A small temple was built just on the edge of the cenote Ch'em Mul, with a drain leading to the well. This may suggest that the temple was a place for conducting sacrificial rites on the edge of the cenote, recalling Cenote Sagrado of Chichén Itzá (see figure 2.36). A terrace with Chaak masks stands nearby, topped by a mysterious Caracol, a building similar to an edifice built in Chichén Itzá and also of the same name. This edifice was probably not built for astronomical purposes, unlike its namesake in Chichén Itzá, since it does not have any observation openings. It has four doors facing the cardinal directions and four niches, originally painted, in the cylindrical center core of the building. The purpose of this structure is unknown, but it seems to have been related to religious rites conducted at the neighboring cenote and temple complex.

Figure 2.40. Stucco panel at the corner of the Temple of Kukulcan, Mayapan, Yucatán, Mexico. Two Magic Birds are descending on the corpse of a victim.

The city of Coba, in the Mexican state of Quintana Roo, is surrounded by several lakes still inhabited by crocodiles. Although the city was founded much earlier, its peak was reached between AD 800–1000, with some structures built even later. Cenote Sagrado in today's village of Punte Laguna was evidently an important locus of pilgrimages from Coba, although it is about twenty kilometers distant. Evidently, Cenote Sagrado was found to be more suitable for ceremonies, although there is another cenote just next to Coba. The descent to Cenote Sagrado can be made by a fifteen-meter-long rope ladder. Inside, a diver can observe some 110 scattered human skeletons of sacrificial victims at the bottom of the side chambers (figure 2.41). These victims must have been thrown down through the mouth of the cenote to meet Chaak. Two altars stand on the edge of the cenote, where the local *h-men* still performs ceremonies (figure 2.42).

Figure 2.41. The skulls and bones of 110 sacrificial victims at the bottom of the cenote side chambers, Cenote Sagrado, Punte Laguna, Quintana Roo, Mexico. Photo courtesy of Alfredo Leal.

Quen Santo is a large surface site located in the Guatemala Highlands in the Department of Huehuetenango, close to the Mexican border. The site dates primarily from late in the terminal classic period to the early postclassic period. Based on epigraphic and ceramic similarities, it appears that there was a link between Quen Santo (and other sites in the western Highlands) and sites in the upper Usumacinta-Pasión drainage (e.g., El Ceibal), as well as sites in northern Yucatán (e.g., Chichén Itzá).

Figure 2.42. An ancient Maya altar, next to Cenote Sagrado, with modern Christian crosses dressed in traditional huipils or fustans (Maya women's dresses), giving the crosses an Indian identity. The idea of clothing crosses is very ancient, and the Foliated Cross at Palenque wears a necklace and other jewelry. Punte Laguna, Quintana Roo, Mexico.

The ruined town is located on a plateau surrounded by *barrancas* (steep ravines). At the base of the *barrancas* are located at least eleven tectonic caves, all ritually used by the Maya. At least one is still the focus of pilgrimages by modern Maya, coming from the adjacent regions of Guatemala and Mexico. In fact, the town's modern name, *Quen Santo*, means "Holy Stone" (in Chuj Maya, *quen* means "stone"), and most likely refers to the caves, especially Cave 3 with its large stone sculpture. The caverns are located directly below the pyramid temples and platforms of the town, in a fashion similar to the caverns under the plaza of Utatlan, also in the Guatemala Highlands. When German ethnographer Eduard Seler discovered some of these caves in 1895–1897, they were filled with ceramics,

incensarios (ritual censers), stone and stucco sculptures, and several stelae. Most of these artifacts have been looted, although some stone and stucco masks and rock art still survives. Modern investigations in the last few years have detected a partly destroyed masonry tomb and other constructions. Some wall paintings are also still detectable. An intact tomb was recently discovered in a natural cave next to a fissure in the western wall of the *barranca*. Inside were the partial remains of an individual and several polychrome vessels of unusual design. Inside the vessels was cremated bone material.

It is likely, as in other cases, that Quen Santo was built above ritual caverns, which increased its sanctity. These caverns, beside being loci for rituals, were also burial places for the elite, resting at the threshold of the underworld.

The Great Western Trade Road and Caves

The late classic city of Cancuén is situated at the head of the Upper Rio de la Pasión in southern Petén, in a transitional area between Lowlands and Highlands. Cancuén was the late classic capital of this region. Since the Rio de la Pasión was part of the Great Western trade route between the mineral-rich Highlands and the Lowlands, Cancuén held a very important position in controlling river commerce. The ancient rivals Tikal and Calakmul vied for control of this important commercial artery. The trade route continued via a series of portages from the Gulf of Mexico to the Guatemala Highlands, which was a source of obsidian, jade, pyrite, and other minerals, as well as quetzal feathers. The Lowlands exported such items as pottery, cotton, honey, and salt. This route may have been used by the invading Teotihuacan army for the conquest of Tikal in AD 378.[13] Tikal tried to maintain control of the route by founding the military outpost of Dos Pilas in the seventh century, which subsequently fell to its rival kingdom of Kan, Calakmul.

Cancuén was founded sometime around AD 600 and stayed in the Dos Pilas/Calakmul sphere until their decline. With its strategic location, Cancuén avoided the Maya classic period collapse longer than other Lowland cities. Cancuén was an important site with ball courts, a large palace, stucco panels, stelae, and metal manufacturing facilities. Its most conspicuous feature is the absence of monumental architecture such as pyramid temples. Nevertheless,

around Cancuén, especially in nearby Sierra de Chimaja, there are geographical features such as steep, karst, tower-like hills that resemble the Lowland pyramid temples. These karst towers, or *mogotes*, were for the Maya the mythical *witzob* (primordial mountains; figure 2.43). The hills here are riddled with many caves with apparent religious significance for the Maya. The topography of the region allowed the Maya to conduct rituals without constructing artificial mountains—pyramids—as in the rest of the Lowlands. The earliest use of caves in the region, as determined from the dating of ceramics, significantly predates the age of Cancuén, indicating use of the trade route beginning in the early classic or even preclassic period. Because of the Lowland style of ceramics of the early classic period, and the staggering quantity of ritual activity in the area, it is probable that the region's cave shrines were mostly used by Lowland pilgrims and merchants entering the Highlands for raw materials. The relatively small town centers in the Cancuén region, such as Tres Islas, El Raudal, and La Caoba Viejo, did not have large enough populations to account for the heavy use of the caves.

Figure 2.43. Mogote (karst tower) in Sierra de Chamaja near Raxruha, Alta Verapaz, Guatemala. From the distance, it resembles an unexcavated, overgrown pyramid.

Figure 2.44. Double windows in the entrance hall of Cueva Venado Saco, part of the Cuevas Candelaria complex, Alta Verapaz, Guatemala. Such large twilight caves were used for Maya public ceremonies.

The Cuevas Candelaria complex (figure 2.44) is a huge cave complex about fourteen kilometers southeast of Cancuén and about ten kilometers west of the modern town of Raxruha. The caves were located alongside the main trade road from the Lowlands to the Highlands as used by merchants and other travelers. Most likely the same road was also used by pilgrims to visit the caves. High traffic on the road ensured the caves' importance. Here also the east-flowing Rio Candelaria enters a 25-kilometer-long cave system with four huge river caverns. In fact, the river passes in and out of the cave

system seven times. The caves may have had an association with the Seven Caves of Creation or the Seven Chamber Cave of Teotihuacan, accounting for the apparent sanctity of the Cuevas Candelaria complex in being a possible birthplace of humanity. The Rio Candelaria first enters Cueva Veronica and continues through three more caves to reemerge from the last cave, Cueva Los Nacimientos, to join with Rio San Simon. It eventually empties into the Rio de la Pasión, headwaters of the mighty Rio Usumacinta. It could not have escaped the notice of the ancient Maya that these caves were the birthplace of the Pasión-Usumacinta river systems, the main riverine system of the Maya world.

In accordance with Tikal's early patronage of the Great Western Trade Route, a large portion of the ceramics found display the Lowland—specifically, the Tikal—cosmopolitan style. After the founding of Dos Pilas and Cancuén in the seventh century, there was an observable shift in the pilgrimage pattern; visitors from the Lowlands rarely entered the caves, and the majority of the ceramics were either local (manufactured in La Lima, near Cueva Los Nacimientos) or of Highland origin. With the collapse of the classic Maya civilization in the Lowlands, the ritual use of the caves ceased.

The main caves are huge twilight caverns, well-suited for public ceremonies. Cueva Veronica may have been especially sacred. Here, Rio Candelaria emerges from the underground for the first time before it re-enters again. In March 2008 we entered Cueva Veronica via an alternate entrance higher on the slope. The ground within was covered by ceramic shards from ritual offerings, some of the painted pottery belonging to Maya elite. The pilgrims' pathway continued then up the river to more secluded areas. Recent research in secluded parts of the caves has found evidence of private rituals such as altars, signs of burning, caches of vessels, burials, greenstone *hacha* (a carved stone object, often in the shape of a human head), drilled-shell pendants, jaguar fangs, and *olla* filled with human teeth. Cueva Blanca, part of Cueva Los Nacimientos, the last cave section in the Cuevas Candelaria complex, is a multi-tiered cave with three entrances. Its lower floor has a wealth of ceramic material, including an *olla* altar similar to the Naj Tunich Cave *olla* altar (see figure 2.16).

There are several other caves just west of the Cuevas Candelaria complex, near the town of Chisec. The caves Jul'Iq and B'omb'il Pek served a ritual purpose for Maya. The second one is best known for a secluded panel of

paintings (figure 3.13).

Figure 2.45. The entrance to Hun-Nal-Ye Cave, Alta Verapaz, Guatemala, above the waters of a spring-fed pool. At the time of our visit the water in the pool was very high, and the current in the outlet, leading to the waterfall, was very strong.

The Great Western Trade Route crossed a pass in the Sierra de Chimaja and continued across the Sierra de Chama before descending to the valley of Rio Cahabon. In this valley, according to Popol Vuh, the Hero Twins (as well as their father and uncle) played their ball game and eventually entered Xibalba in the Semuc Champey gorge of the river. In the heart of the verdant Sierra de Chama hills, at the headwaters of the Rio Dolores, is a cave called Hun-Nal-Ye Cave, named after the Maya First Father. It is one of the most amazing caves in the Maya world: its entrance is located several meters above a beautiful sapphire-blue pool in the deep jungle of the Alta Verapaz mountains (figure 2.45). The pool is fed by an underground spring and empties via an eight-meter-high waterfall. The spring is actually the source of the Rio K'etchun, a tributary of the Rio Dolores. With such a magical setting, the cave must have been very sacred. A trove of staggering archeological treasures has been recovered from it, including twenty-seven vessels, most of

them late preclassic, and imported ceramic from the Highland site of Kaminaljuyu. Some late classic vessels were exclusively of local origin. The most striking artifact ever recovered from any Maya ritual cave was found here: a carved stone box of early classic Lowland origin. Made from volcanic stone, it is carved with mythological scenes portraying the Maize God, the Moon Goddess with a rabbit, and the Jaguar Gods of the Underworld on a serpent throne with glyphic inscriptions (figures 2.46 and 2.47). The text on the box lid is translated *So that's how it begins*, *this carving*, *this box the house of the Moon god was made by* [illegible] *it's beautiful*.

Figure 2.46. Front side of a carved stone box from Hun-Nal-Ye Cave, Alta Verapaz, Guatemala. It shows two underworld jaguar gods sitting on the serpent throne. Photo courtesy of Stephen Alvarez. © Stephen Alvarez.

On the sides of the box is a text referring to the god K'awil and to Lowland cities, perhaps Tamarindito or Tikal. The box was evidently made by two different artists, since the styles of two of the panel carvings are different (and have been dated between AD 480 and 550). Some of the symbols on the box indicate that it could have originally housed a Maya codex. Another unadorned stone box was also recovered from the cave. Boxes of this type usually contain human ashes, but this one contained the calcified femur of a

tapir, which may have been placed in the box centuries after it was made. The rest of the tapir skeleton was found in a different chamber, surprisingly accompanied by ceramic and snail offerings (figure 2.48). The tapir was most likely a sacrifice, although it is hard to imagine how such a large animal could be forced into the cave. Tapir bones have also been found in Crystal Cave and reportedly also in Actun Uayazba Kab (both in western Belize). Was the sacrifice of a tapir in a "creation cave" connected with the ancient myth that tapir blood was used for the creation of the first people by the creator gods? With its restricted access, Hun-Nal-Ye Cave was clearly not used for public ceremonies; it was most likely a sacred worship place for the Maya elite.

Figure 2.47. Back side of a carved stone box from Hun-Nal-Ye Cave, Alta Verapaz, Guatemala. It shows the Maize God and the Moon Goddess with a rabbit. In Maya mythology, the young Moon Goddess (Ixchel) is always associated with a rabbit. The carvings on two sides of the box were apparently rendered by different artists. Photo courtesy of Stephen Alvarez. © Stephen Alvarez.

Figure 2.48. Tapir bones with ceramic and snail offerings in Hun-Nal-Ye Cave, Alta Verapaz, Guatemala. The inclusion of offerings with animal bones is unique. The vase deposited next to the tapir skull is late preclassic from the Guatemala Highlands.

The Maya Collapse and Colonial Period

In the ninth century the Maya Lowland cities were abandoned in the classic period Maya collapse. As noted, this was perhaps one of the most momentous failures in the history of human civilization, and while the reasons for the collapse are not yet fully known, it was probably due to a combination of overpopulation and agriculture failure resulting in famine, destructive wars, and, ultimately, the collapse of the authority of the divine Maya kings. As the population disappeared or moved away from the Lowland areas, the ritual use of many caves ceased. These now-silent caves became time capsules until they were discovered by archeologists or looters in the twentieth century.

Nevertheless, cave and cenote rituals continued in other Maya areas that were still populated in the postclassic period. One example is Cenote Sagrado in Chichén Itzá, where ceremonies and pilgrimages continued even after the city was abandoned sometime in the eleventh century. The east shore of the Yucatán peninsula, today's Quintana Roo coast, was also densely populated

in the postclassic period. The Maya apparently ritually used caves near the Caribbean coast in the terminal classic and even colonial periods. Examples of such caves are Actun Ch'en (see figure 2.10) with its masonry shrines, built in the style of small postclassic temples; Cenote Tancah with its carved stela and petroglyph stairway (see figures 2.12 and 2.19); or the stucco altars of Sistema Pool Tunich on the Quintana Roo coast (see figure 3.7).

The Spanish, with their Christianizing zeal, made a great effort to force the Maya to abandon all facets of their pagan religion, including their cave cult. However, this several-thousand-year-old Mesoamerican tradition proved too tenacious to be completely eradicated.

The Yucatán Spanish authorities in the sixteenth century recorded confessions of Maya shamans and priests who reported ongoing cenote sacrifices. These testimonies include the names of the victims, where the sacrifices were performed, and the nature of the rituals (heart extraction, decapitation, and so forth). There are many accounts in Spanish colonial literature of the Maya persisting in their old ways by worshipping in caves. It is likely that such offenses were punished by whipping and torture to force a confession. Many of the sites and cenotes mentioned in Spanish colonial records can be identified today. One example is the village of Tecoh, south of Merida, where in the sixteenth century two youths were sacrificed by heart extraction in a Christian church (built on a Maya platform; figure 2.49) by a Maya Catholic priest. Their bodies were deposited in a cenote as an offering to Chaak. In the late sixteenth century, Spanish authorities in Mani in Yucatán also noticed that small children were disappearing; the children were later found crucified in nearby caves. Evidently, the Maya thought the single sacrifice of Christ was not enough to sustain the world, and the gods required the Maya to continue with human offerings.

In sixteenth century Yucatán, pairs of boys were sacrificed for the ailing Juan Cocom, who was a principal informant of friar Diego de Landa, the Yucatán bishop. It seems that these sacrifices constituted a form of *k'ex* curing ceremonies. In the Yucatán towns of Sotuta and Homun, native shamans conducted the nightly rituals in colonial churches (built on the site of Maya temples and using original temple stones). The rituals consisted of sacrifice by heart extraction of the youths, after which the shamans smeared the victims' blood on idols. The victims' bodies ended up deposited in cenotes. It is not clear why some victims' bodies were transported by

shamans after the rituals to distant cenotes, especially when “suitable” cenotes were nearby. In fact, recent research has uncovered large numbers of human remains in distant cenotes, while others, close to the sacrifice sites, have no human remains at all. Perhaps some cenotes were more sacred than others. This information may have been contained in Maya manuscripts burned by Diego de Landa during an infamous auto-da-fé in the town of Mani in 1562. Landa had said that these Mayan books contained “nothing in which there were not to be seen superstition and lies of the devil, we burned them all, which they regretted to an amazing degree, and which caused them much affliction (Landa D. de 1941).” An unusually high number of human sacrifices, and follow-up trials by Spanish authorities, were recorded in the Archivo General de Indias in Seville, Spain, in 1562. There were 99 instances of human sacrifice, involving 196 victims at 143 deposition sites.

Figure 2.49. Colonial church in Tecoh, Yucatán, Mexico, built on top of a Maya platform.

Research has also uncovered a large number of wooden artifacts preserved along with skeletons in the depths of underwater caverns. Some of these artifacts may have been the beams of crosses to which the victims were tied before the sacrifice. In Spanish colonial archives, the use by the Maya of wooden crosses for sacrifice by crucifixion (resembling the martyrdom of Jesus Christ) during the colonial period is well attested to. It bears a close resemblance to the so-called scaffold sacrifice practiced by the classic period Maya, which is well documented in pottery painting. The presence of lidless wooden boxes, some covered with stucco, along with sacrificial remains is

yet unexplained.

During the colonial period, transgressions like cenote sacrifices led to severe punishments, including executions. Colonial archives recorded that shamans and *caciques* (a pre-Columbian tribal leader) were hung by their thumbs in churches until they confessed to Spanish authorities their "idolatrous" religious practices. This kind of scenario was played out in all corners of Mesoamerica. In spite of such repressive measures, the natives worshipped in caves throughout the colonial period and continue to do so to this day. Even the most extreme part of the caves cult, the human sacrifices, secretly continued into the eighteenth century and perhaps until the Yucatán Caste Wars in the middle of the nineteenth century.

The Maya and Caves Today

Did Christianity really win in Mesoamerica? Crosses on the top of pyramid temples, and churches built on top of Maya platforms or in the middle of ancient Maya sacred precincts, might indicate that it did.

Beneath the thin veneer of Catholicism, however, thousand-year-old customs, including cave cults, survive. On many occasions, the native Maya conduct ceremonies in the ritual caves of Balankanche, Actun Tunichil Muknal, Utatlan, Jolja, and many others. The rituals are a blend of old Maya and modern Christian beliefs. Crosses for the Maya may symbolize Christianity as well as the intersection of the natural and supernatural Maya worlds. In the fall, farmers from the Guatemalan village of La Compuerta come to the entry of Naj Tunich Cave, an ancient Maya pilgrimage site, to thank the gods for the harvest. In one of the cave's recesses, I found a modern incense burner, apparently used in recent ceremonies. In Petén's Cueva Tecolote, used as a Maya ritual locus for more than two thousand years, I came across the evidence of a recent ritual by Maya *brujos* (shamans). On the floor between rimstone dams, deep inside the large cave, was the body of a hawk that had been recently decapitated. The site of the sacrifice was surrounded by several ancient, crude stone walls, which probably delineated a sacred, liminal space.

Ch'ol Maya residents of the village of Joloniel in the Mexican state of Chiapas celebrate the Day of Cross in May with prayers by a Maya ritual leader, or *tatuch*, in the village's decorated Catholic church. The celebration

continues with a pilgrimage to nearby Cueva de Jolja, as the residents take with them an image of the Virgin Mary, which normally sits on the altar in the village church. The ceremonies move to a small chamber of the cave, just below pre-Columbian paintings, and continue with offerings and prayers for rain to a mountain deity called Don Juan (figure 2.50). Don Juan seems to be a hybrid between an old Maya god, perhaps Itzamnaaj, and a Christian saint. He is said to live in this chamber and is manifested by a draft of cold air. Don Juan also has variety of names: Our Father, Cave Lord, Spirit of Water, and Owner of the Earth. The petition to Don Juan made on the Catholic Day of the Cross (May 3) happens to be made just at the outset of the rainy season. For these people, in the course of these rituals, the image of the Virgin Mary actually becomes the Virgin herself. Women wash her in the spring water in two caves during the two-day ceremony, which includes prayers for rain, the lighting of candles, the burning of incense, and the drinking of *aguardiente*, an alcoholic beverage.

Figure 2.50. Chamber in Cueva de Jolja, Chiapas, Mexico, where Day of the Cross ceremonies take place.

Cueva Jul Iq', near the town of Chisec in Alta Verapaz, Guatemala, is still

used by the local Q'eqchi' Maya for ceremonies. In one of the cave's domes, where rays of the morning sun stream through the ceiling opening, there is a stone altar that was most likely a scene of ancient religious rites. A stalagmite in the shape of a kneeling woman is only a few meters away from the ancient Maya altar. In an example of the blending of two faiths, the modern Maya pray, burn candles and copal resin, and bring offerings to the altar of Our Lady of Guadalupe, a Mesoamerican Christian saint.

Perhaps the most striking example of the modern Maya carrying out pagan rites in caves can be witnessed in the ruins of the postclassic K'iche' city of Utatlan (K'umarcaaj) near the modern town of Santa Cruz de Quiche in the Guatemala Highlands. The city was a hilltop fortress before it was destroyed by the conquistador Pedro de Alvarado in 1524. Before that, he burned two K'iche' leaders on the city plaza, where the main temples stood. The local Maya still come to the city plaza and burn offerings at the niche of the ruin's main temple. Moreover, sometime before the Spanish conquest, the Maya excavated several deep caves in the soft volcanic tuff of the hillside and leading under the city plaza.

Figure 2.51. Main ceremonial cave under the plaza of the ruined K'iche' city of Utatlan, El Quiché, Guatemala. Smoke is coming from ceremonial fires lit in the front of the cave by shamans conducting the ceremonies.

We came to Utatlan in March of 2008, explored the caves, and witnessed ceremonies conducted by the Maya shamans. The most important upper cave here is a dark 125-meter-long passage with a ceiling sooty from burning candles and copal offerings (figure 2.51). It was dug out to simulate a corbelled arched ceiling, thereby mimicking a Maya corridor. The cave has seven niches, an allusion to the Seven Chambered Cave of the ancient Teotihuacan, the site of humanity's birth. In one of the niches is a deep hole, and the shrine is marked with a Christian cross. The small flat ground in front

was a locus for Maya ceremonies conducted by *chuchkahawo'ob* (shamans), who were recognizable by their turban-like headdresses, or *tzute*. The shamans burned small fires, offering corn cakes, copal, *aguardiente*, eggs, and flowers to the *Mundos* (Earth Lords), while praying for health, luck in marriage, and good harvests. For today's Maya, the most powerful *Mundo* is Tekun Uman, the last K'iche' king, who died on the lance of Pedro de Alvarado in a battle at Xelahuh in 1524. He became an Earth Lord, a spiritual being who protects the land, its bounty, and the human community. Sometimes chickens are also sacrificed as a gift to the *Mundos* to gain permission for people to kill animals to eat. As we observed, the ceremonies continued inside the caves where the participants brought more offerings and burned candles and sacred copal. The smoking of cigars, presumably with a mild hallucinogen, is also considered a sacred activity. While these pagan ceremonies were still in progress, another group of Maya were praying to Christian saints on the plaza above the caves.

During my 2008 visit to the Cuevas Candelaria complex in Alta Verapaz, Guatemala, I entered the cave complex Mucbil'ha, where the local Q'eqchi' Maya also conduct modern ceremonies. Around the firepits were fresh flowers, bromeliads (air-feeding plants thought to be in close contact with the spirits), and broken speleothems: living rocks with sacred power.

A few years ago, I witnessed a ceremony in the Christian church in San Juan Chamula in the Chiapas Highlands. In front of the church stand crosses, decorated with bromeliads and pine boughs. The crosses are conceptually trees, painted blue or blue-green. They represent *yax-te'*, the ceiba tree that is a living embodiment of *Wakah-Chan*, which is the center of the world.

Inside the simple church was a rather unearthly atmosphere: the church was filled with smoke from candles and incense burned on the pine needle–covered floor. The vaulted ceiling was black from smoke, and the interior was dark. There were wooden statues of saints, carved with Maya faces, in glass cases along both long walls, and decorated with bromeliads. On the main altar was a statue of Saint John the Baptist, also carved with Maya facial features. The Maya were sitting or kneeling on the floor, praying, chanting, murmuring, rocking back and forth rather intensely, and drinking tequila and soft drinks, with a ring of bottles encircling them on the floor. Some people were sitting and chanting in the middle of candle rings. Shamans performed healing ceremonies for a sick child. This might have

been what it felt like to be in a Maya ritual cave in the distant past.

Figure 2.52. Precolumbian stone idol, Pascual Abaj, on top of a pine-clad ridge above Chichicastenango El Quiché, Guatemala. Offerings include flowers, corn seeds, and copal.

Even more dramatic are the ceremonies that take place in the K'iche' town of Chichicastenango in the Guatemala Highlands, which I've also witnessed. The quiet of this town of cobbled streets and red-tiled roofs is shattered twice a week on market days. The unconventional ceremonies take place both on stairways and inside two churches, Santo Tomas and Calvario. The Calvario is a miniature version of Santo Tomas, being on the west side of the town and in the direction of Xibalba; it is a traditional Maya house of ancestors. The offerings are made in a fire on the church's stairway, resulting in a constant cloud of thin, sweet smoke hanging over the steps. Inside the church, a constant hum of murmuring fills the air as the Maya kneel and place candles on stone platforms, praying to their ancestors and saints, who get equal respect. Certain areas of the church with particular patterns of flowers, candles, rose petals, or bottles (*aguardiente* or Coca-Cola) are used to invoke a specific type of blessing. Santo Tomas church is the site where the parish priest Francisco Ximenez became acquainted with the Maya "Bible," the

sacred book of Popol Vuh, in the early eighteenth century.

Later we hiked a steep path to the top of a hill above the town. At the hilltop shrine Pascual Abaj, secluded in the pine forest, the local Maya worshiped at a pre-Colombian stone idol flanked by Christian crosses (figure 2.52). Equally stunning were ceremonies at the cemetery, a short way behind the Calvario where, next to a Maya shrine, offerings of incense and alcohol were made. As in San Juan Chomula and the caves of Utatlan, I felt transported back in time a thousand years.

3

Journeys into the Underworld

Since 2000, I've studied Maya sculptures of underworld beings on ancient pyramids, crawled into the suffocating tombs of ancient rulers, cut into the bedrock under mortuary temples, and most importantly, explored many ritual caves deep in the jungle all over Mesoamerica. Sometimes the caves were difficult to access, and in many cases I spent long, dark hours inside constricted passages, crawling in mud, sweating in the high humidity, and fording and swimming in underground rivers. Here is my personal record from some of these journeys.

There are thousands of caves and cenotes in the Maya region. Many of them were used ritually by the Maya in the past, with some still being used even today. A few Maya ritual caves are easily accessible today, like Loltun Cave and Balankanche Cave in Yucatán. In Belize there are several Maya ritual caves that have been made accessible to "adventure tourists" with qualified guides. To combat looting, Belize laws require that all the caves only be entered with licensed guides. Most of the caves are in nearly inaccessible areas, sometimes deep in the jungle, and require local knowledge to find. I visited ritual caves sometimes alone, but mostly with Maya guides, without whom I would never have found them. We walked, rode horses, and used boats to reach caves in the jungle. We climbed, crawled, kayaked, canoed, and sometimes swam in the caves as well. Penetrating the Xibalba realm was not easy either; we had to descend into sinkholes using everything from ropes to tree trunks.

Most of the caves were wet, so we often crawled through mud. In addition, the Maya had a habit of placing their offerings, sculptures, and paintings in a cave's most difficult-to-reach places. So we had to squeeze through narrow and low openings or climb or descend sheer cliffs to reach the most sacred chambers. Caves often contain sheer drops and deep pits, which the Maya were able to negotiate using ropes or ladders. Falling down from these could

easily be fatal or at least result in serious injury. I could not imagine transporting an injured person out of the caves.

I was also surprised to see life in these areas of perpetual darkness. Most ubiquitous are the bats. There are three types of bats in the caves: insect, food, and vampire bats. Flying vampire bats make a noise like a rushing river. Sometimes they carry rabies and infect cattle and horses. They inject an anesthetic when they bite and drink the blood. They return to the same sleeping victims. Sometimes they attack humans. Underworld bats were often subjects of Maya paintings on pottery vessels. It was huge killer bats, Camazotz, that bit off Hunahpu's head during the trials of the Hero Twins in Xibalba.

On the walls of many caves, spiders, scorpions, tarantulas, moths, and other bugs crawl or cling. In pools and cenotes swim sightless crabs, shrimp, and crayfish. Most ghostly looking are the atrophic catfish, with their translucent, bluish bodies. These catfish with their barbels recall an episode from the Popol Vuh in which the Hero Twins morph into catfish in the River of the Underworld after being sacrificed by the underworld gods. Jaguars live in the caves also, and in Maya mythology they are often connected with caves and the underworld.

The dangers in caves are not limited to getting lost or injured. On dry cave walls crawl small "assassin beetles." We were careful to avoid contact with them. When the bug bites, it secretes an anesthetic fluid so one doesn't feel the prick. The bug also defecates around the bite site. The resulting irritation causes the bitten human host to scratch around the site and contaminate the wound with a protozoan parasite (*Trypanosoma cruzi*) present in the beetle feces. The parasites multiply and spread in the host, causing inflammation of the heart muscle. Several bites by the bug are usually fatal. The World Heath Organization estimates that 16–18 million people are infected with *T. cruzi* in Central and South America, with an annual mortality rate higher that fifty thousand. The infection, called Chagas' heart disease, is not treatable. Another heath risk in dry caves is histoplasmosis, a kind of fungal pneumonia, caused by spores from bat feces. This can be contracted by the inhalation of dust containing bat dung. To prevent inhalation, we covered our mouths while walking in dry caves. Histoplasmosis is treatable by a variety of antifungal drugs, but the treatment is almost as bad as the malady.

Mexico

Yucatán Peninsula

Gruta Loltun, November 2002

Loltun Cave is located close to the town of Oxkutzcab, in Sierrita de Ticul, the eastern range of the small Puuc Hills in central Yucatán. (*Loltun* means "stone flower" in Yucatec Maya, alluding to the shape of its karstic formations.) It is a very large cave, open to tourists, with around two kilometers of passageways, seven large chambers, and seven entrances. There were about eighty paintings in the cave (many have been destroyed), plus numerous petroglyphs, dated either to the preclassic or postclassic period.

On the top of the grotto, there is a reddish rock outcrop with a carving of a preclassic warrior, rendered in a rather unusual fluid style, with a phallic-symbol stone next to it. At the Nahkab entrance to the cave system is a huge petroglyph of a Maya king with a manikin specter and a yet-deciphered hieroglyphic inscription in the Izapa (preclassic) style. The king's image has facial features, including a protruding lower lip, strongly resembling the rain god Chaak on Izapa Stela 1. It could be dated to AD 50–200 (figure 3.1). Throughout the cave there are many *haltuns* (stone troughs), which were for collecting *suhuy ha'* (virgin water) from the stalactites (see figure 2.13). The dark passages go deeper and deeper, between huge boulders, through underground canyons and incredibly big chambers. In one of the alcoves, called Salla de Infante, were the burial remains of a twelve-year-old child, without offerings, evidently a sacrifice. Some stalactites have had their ends cut off by the Maya to be used in ritual contexts and buried in offering caches under stelae or under buildings.

Figure 3.1. Rock carving at the Nahkab entrance to Loltun Cave, Yucatán, Mexico. It shows a preclassic ruler in a guise of the rain god Chaak. The glyphs are so far unreadable.

In one large chamber with an opening in the high ceiling and with roots of trees from above reaching down, there are two stalagmites fashioned into crude idols, likenesses of Xibalba demons. On the walls are petroglyphs, including “stone flowers,” and negative and positive prints of hands in black and ochre. Some of the handprints have six fingers—a deformity considered by the Maya a sign of divinity. As noted, these handprints perhaps indicated the spot through which a shaman entered the underworld, were simply a statement of “I was here,” or were, as archaeologist Guillermo de Anda has suggested, “signatures” of victims prior to a sacrifice. There are many other paintings in several areas of Gruta Loltun, ranging from the preclassic to late

classic period and corresponding to the age of excavated ceramics. Some of the paintings have been destroyed by visitors.

In a cavern called Huechil (Armadillo), archeological excavations have unearthed mammoth, bison, cat, and other prehistoric animal bones, indicating that the climate in Central America was cooler then.

Cueva Xcoch, February 2009

The ruins of the Maya city of Xcoch are hidden in *selva* (tropical forest) fifteen kilometers from the village of Santa Helena, south of Merida on Mexico's Yucatán peninsula. The site has not been excavated, but at least four large pyramids gave us an idea of its former grandeur.

Some of the walls, terraces, and pyramids here were built from large mega-stones, dating the city to the preclassic period. On the other hand, the rectangular plaza at the foot of the highest and most impressive pyramid is littered with carved stones typical of the Yucatán late classic Puuc style. The site was probably inhabited from at least the middle preclassic to late classic period.

Working through the bush, my guide Humberto Bonillo and I climbed the highest pyramid, gaining a good view of Santa Helena church (standing on the mound of an old Maya pyramid) toward the east and the ruins of Uxmal, fifteen kilometers south. The second highest pyramid has an entrance to a water cave at its foot. Apparently the pyramid was built immediately above the cave (which has its water source deep inside) to increase its sanctity. Similar to Dos Pilas or Mayapan, this watery cave determined the site for building. We descended a short ladder through the entrance shaft of the cave and crawled through a long, low tunnel. We came to a higher area with several side alcoves and saw just a few ceramic shards. There were also two carved stones: one was a cylindrical, Puuc-style column; the second one was a conical carved stone, possibly an altar. The round column must have originally been a corner decoration of some surface building and was probably brought to the cave as an offering. Nearby were small piles of blackened human bones, including the fragments of a child's cranium. Around the altar were remnants of stucco paving. One piece of paving had graffiti resembling a rudimentary mask. There were also many wood pieces around, some looking like torch holders. I have never seen so many

fragments of ancient wood in any cave. In an alcove on the right was a small pile of human bones. They lay on stucco pavement, bordered by two long, wooden objects. We saw more preclassic pottery offerings, some punctured with a hole so the vessel would not be usable in this world.

We started next on a rather tortuous path to the cenote. We climbed up to a high chamber with a dry abyss on the left bridged by several half-rotten logs. Then we descended a narrow corridor to a ledge with a number of ceramic fragments. On the ledge lay the remnants of a ladder (with drilled holes, apparently made by a metal tool, so the ladder was possibly from the colonial period). I later learned that the cave was visited by its first outsider, American John Lloyd Stephens, in the 1840s (see introduction), and the access shaft to the cenote was closed sometime in the nineteenth century, to be opened again in 2006. We continued descending through a narrow chimney and experienced problems with breathing, perhaps due to low oxygen. The shaft led to a small well with atrophic fish (blind cave fish, *Ogilbia pearsel*). On the ledges around the cenote were large, broken jars with orange slip (figure 3.2). They resembled the Gruta de Chac jars (see figure 2.35), although not painted with their characteristic designs. Their location, near an underground water source, also corresponds to the location of jars in the Chac cave (located thirty kilometers east of where we were). It is clear that in the rainy season, these ceramic offerings would become flooded by the rising water level of the cenote, like the human sacrifices placed in a water context in many caves. We laboriously climbed back, huffing and puffing from the lack of oxygen. It was subsequently determined that the pottery in the cave was used from the middle preclassic to colonial period.

Grutas de Calcehtok and Actun Usil, November 2003, March 2007

On a scrub-covered plateau around the large Maya city of Oxkintok in western Yucatán are about eighty caves. Many of them served ritual purposes for the Maya. I have visited two of them, Grutas de Calcehtok and Actun Usil.

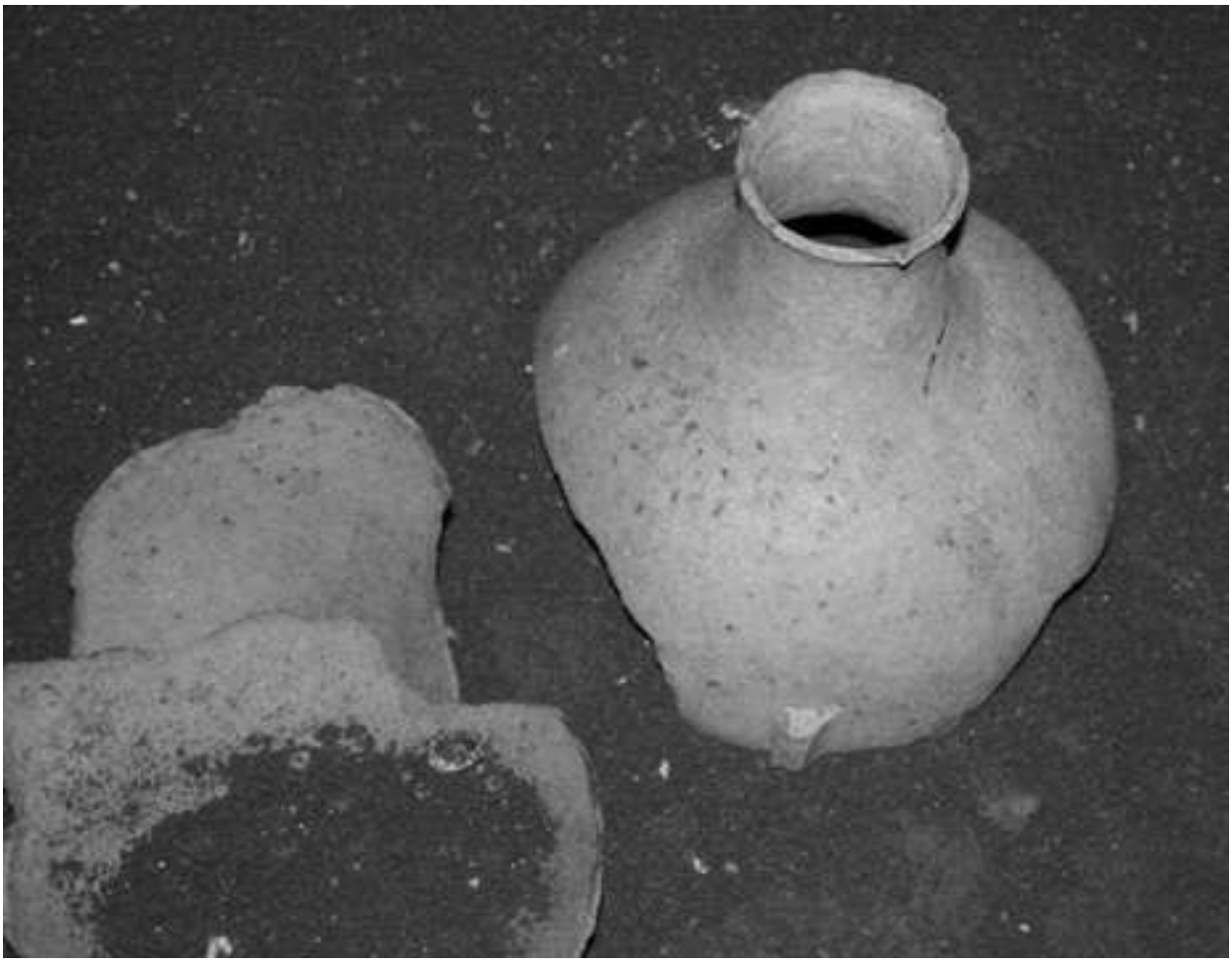

Figure 3.2. Broken water jars, reminiscent of early classic Chac polychrome jars (see figure 2.35). Cueva Xcoch, Yucatán, Mexico.

Grutas de Calcehtok is located several kilometers west of the ruins of Oxkintok, and it was probably the main ritual cave for this large city. The cavern system extends several kilometers and is the largest in Yucatán. I visited the caves twice, once with a friend and later with local Maya guide, Jacinto Cuy. The first trip was not very successful, and we had to give up after a relatively short time. The humidity in the caves was very high, making our lanterns ineffective and orientation difficult. There were different labyrinthine passages, and we would almost certainly have gotten lost.

Figure 3.3. View into the second sinkhole (Garden of Eden). Grutas Calcehtok, Yucatán, Mexico.

In March 2007 I went back with Jacinto Cuy, who knew the cave well. We entered the cave system via two sinkholes connected by a tunnel (figure 3.3). The first sinkhole was not very deep, and we descended into it using a metal ladder. We continued through a tunnel over a slippery descending trail, perhaps originally a stairway built by the Maya. On the side of the trail were two large, flat-faced, lichen-covered boulders with carvings. The lower panel was less eroded, with several recognizable glyphs. We then reached a huge cavern with a round window and tree roots reaching to the bottom. A profusion of large banana trees, ferns, and other plants grew in this underground Garden of Eden, in a humid atmosphere filled with unseen buzzing and biting insects. A thick layer of bat guano covered the bottom, so we had to cover our mouths to prevent inhalation of the fine dust.

The cavern's huge entrance was typically decorated with stalactites, and the ground was covered by huge boulders. We found stalagmites cut to form altars, and a couple of speleothems cut to form *haltuns* to collect water (figure 3.4). We located several crudely carved stone faces on the boulders.

In a *breakdown* (collapsed area), Jacinto also found an unusual *haltun* carved out of a huge boulder with three depressions and a mask on its side. The depressions may have been receptacles for a liquid (sacrificial blood?), and the face was the typical, crude, scary face found in other caves (see figure 2.17).

Figure 3.4. Altar made from cut stalagmite, and a haltun in the twilight zone of Grutas Calcehtok. Yucatán, Mexico.

As I also had noticed in other caves, the carved stone faces appeared to be located exclusively in the twilight areas of the cave. Near the entrance was an eroded, carved stela, perhaps in the likeness of a standing person. Jacinto led me through several corridors into what he called Ceremonial Hall, a dome with its ceiling beautifully decorated with stalactite formations. The dome had a very high ceiling (perhaps thirty meters), like a cupola in a baroque church, and on it was painted a large, red mask of the rain god Chaak. The mask was next to impossible to photograph due to its distance and the poor light. It is interesting to speculate how the Maya transported through the labyrinthine passages and then built such a high scaffolding inside the cavern

to paint the mask on the ceiling. In one of the niches were pieces of painted pottery, some *metates*, and *haltuns*. In a niche in the cave wall was a large old conch shell, evidently brought from the Gulf of Mexico or Caribbean. The Maya used conch shells as trumpets for rituals involving bloodletting and sacrifices, and they even had a God of the Trumpet (Uc-Zip), who announced the arrival of a vision by blowing a shell trumpet. Conch shells also served as paint pots for the Maya scribes.

This huge hall had more alcoves; in one, framed by stalactites, was a large, red, well-preserved, terminal classic period slateware pot. One large alcove was a source of reddish clay that the Maya had used for making pottery. In the back wall of the hall was an entrance to a labyrinth, originally walled off by the Maya but recently discovered and opened by archeologists. We entered a low and narrow passage and climbed several steep slopes using fixed ropes. We arrived at the edge of a deep abyss and descended to its bottom. From there we continued through an extremely constricted passage. We slid down on our bellies to an inner cave and another small alcove. In it was a small pool of water surrounded by scattered human bone fragments and teeth. Originally there were ten skeletons in the alcove, but most of the remains had been removed by archeologists. In the rainy season the water level in the pool rises, the alcove becomes flooded, and the bodies become submerged (most cave sacrifices were carried out as supplications for rain to the deity Chaak, whose mask was painted on the high ceiling of Ceremonial Hall). The location of this burial alcove indicates that the dead bodies had to be dragged through difficult passages from Ceremonial Hall. Moreover, at some point the Maya tried to conceal the pathway to the death chamber by building a masonry wall.

Actun Usil is a twilit, multi-chambered cave located about four kilometers west of the Oxkintok ruins. We reached it by a relatively easy hike in murderous heat. The first chamber is very high (about twenty meters) and has paintings on the ceiling, several beautiful karstic formations, and at least one carved mask with residual red paint. Again, the Maya must have constructed an enormous scaffolding to paint on the ceiling of the cave. The pictographs are mostly geometric designs, including two *k'an* crosses (Maya creation symbols) painted in red. The other connected chamber has several masks carved on the boulders.

Sistema Pool Tunich (Rio Secreto), February 2009

The ancient cities of Xcaret and Xamanha (today's Playa del Carmen) were ports of embarkation to one of the most important Maya pilgrimage destinations, the Island of Cozumel. In addition, this section of the coast and its immediate surroundings are riddled with caves, many with underground rivers and cenotes. Many, if not most, of these caves and cenotes were loci of ritual activities of the ancient Maya, and perhaps also of pilgrims visiting the sacred Island of Cozumel.

Today, this overdeveloped coast is a center for tourist activities, with many mega-resorts and theme parks. Although some large cave systems are still being explored, many of the cenotes are used for commercial diving, and any cultural material has long since disappeared. Nevertheless, the water caves of Sistema Pool Tunich (today's Rio Secreto), south of bustling Playa del Carmen, are mercifully preserved. I explored the large water caves of twelve-kilometer-long Sistema Pool Tunich with guide Tania Ramirez, who recently discovered an intact shrine in the system.

Figure 3.5. Speleothem stairway leading to the pool. Sistema Pool Tunich, Quintana Roo, Mexico.

We entered Sistema Pool Tunich via one of its fifteen openings. A partly destroyed stucco altar, similar to altars in postclassic ruins, was standing in the opening. From the altar a well-preserved speleothem stairway led to the water (figure 3.5), bordered on one side by a crude stone wall, most likely meant as a traffic flow designator. We walked for a short while through the jungle and entered the system through the next opening with another partly ruined stairway leading to the water. We found some painted ceramic shards (some of them from the middle preclassic period, documenting the cave's long historic span of use) and mysterious stone *pasillos* (corridors; figure 3.6). A row of standing, flat stones delineated a pathway leading . . . where? The purpose of these alignments, which we also noticed at other entrances,

remains obscure. After some crawling through low passages, we reached the edge of a pool of clear water and swam through domes with beautiful karstic formations for several hours past several other openings. In the last opening was situated a beautifully preserved stucco *adoratorio*, with a niche for an idol built around a stalagmite (figure 3.7). Next to it was evidence of stalactite-cutting by the Maya for surface offering purposes. We spent six hours underground in this beautiful water cave.

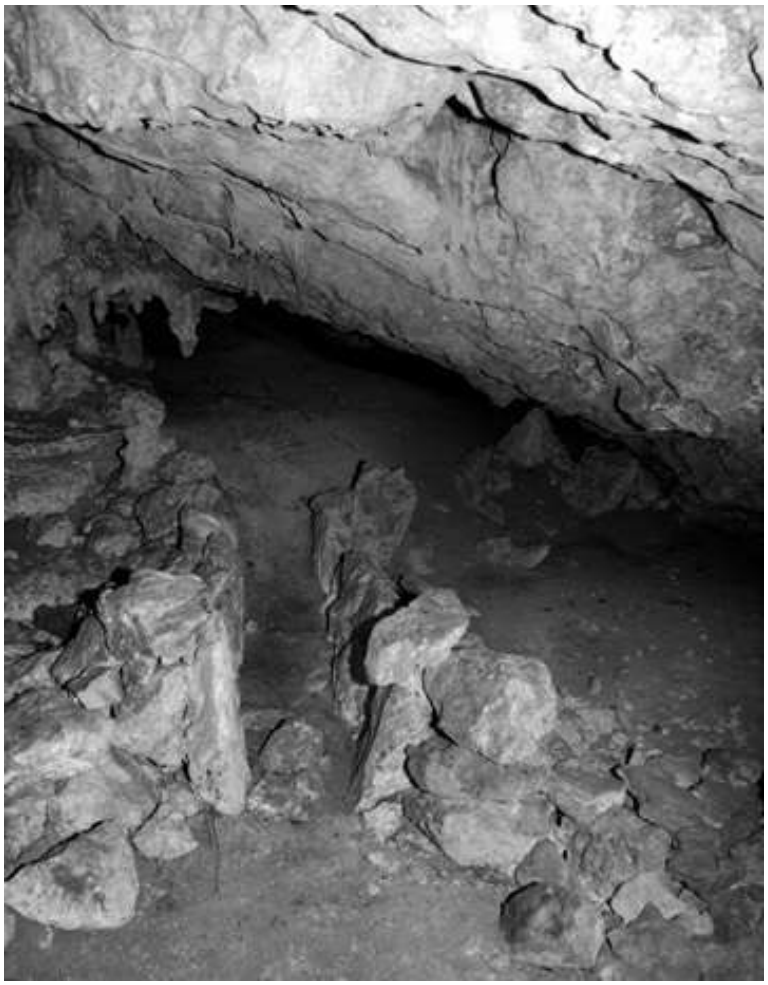

Figure 3.6. Mysterious stone pasillos (corridors). Sistema Pool Tunich, Quintana Roo, Mexico.

Cenotes in Yucatán, Campeche, and Quintana Roo

I visited just a few of the many cenotes in Yucatán. Cenotes Dzitnup (see figure 2.4) and Samula are on the outskirts of the town of Valladolid in Yucatán. Cenote Dzitnup is entered through a narrow sloping corridor, passable by just one person at a time. The passageway leads down between karstic formations to a huge dome, an underground basilica with an arching

roof. A shaft of light falls into the middle of a pool of turquoise water here. It is truly a dramatic vision of the underworld. A smaller neighboring sinkhole, Samula, is less dramatic, but has the roots of a huge ceiba tree stretching straight down to the surface of precious water fifteen meters below it. This is a vivid image of the mystical powers the Maya attributed to these trees, spanning the upper world, middle world, and underworld. Gran Cenote near the city of Tulum is a wide, open cavern with a collapsed roof, surrounded by rock columns and exquisite flowers. A large pool runs into the caverns with great underwater vistas of karstic formations. It is possible to swim through a stalactite-decorated cavern to the second opening of the cenote. Another cenote in this area, Cenote Dos Ojos, was long considered the longest underwater cave system in Yucatán, with over six hundred kilometers of passages. It is now the second longest after the recently discovered Cenote Nohoch Nah Chich.

Actun Toh, February 2007

The Yalahau region of the Yucatán peninsula has abundant sources of surface water, so cave cenotes were not sources of utility water for the ancient Maya here, but rather served exclusively for ritual purposes. One of the cenotes is Actun Toh, located near the village of San Diego de Dios, east of Valladolid. In February 2007, arriving at this rather remote village, I located the *comissario* (village administrator), and a young man named Marcos, who was willing to help me find the cave, especially once I mentioned Señor Box Ni (Dr. Dominique Rissolo, a California archeologist, who suggested I visit this cave). Marcos found two more guides, and we started to hike into the bush. After the recent Hurricane Wilma, the trail was barely discernible, and the guides had to clear it with machetes. It took us about half an hour to locate the cave; its entrance was a hole in the ground about 1.5 meters in diameter.

Figure 3.8. Inside view of Actun Toh showing the preclassic ruined pyramid platform. My climbing rope and strap are hanging from the eighteen-meter-high window. Actun Toh, Quintana Roo, Mexico.

After clearing the brush around the cave opening, we set up anchoring straps and rappelling gear, and I dropped down the hole. The cave was 18–20 meters deep, and I rappelled first through a chimney and then through a free space to land on a pile of rocks, which turned out to be a ruined pyramid platform. The platform was 3–4 meters high and built from stone mega-blocks. Its megalithic stairway was still well preserved (figure 3.8). This turned out to be a fairly small cave with a shaft of light coming down through a window-like opening. In the cave's twilight area, we located seven crudely carved faces on the stalactites, three large faces and four small. A stone

stairway led down past the carved faces to a small cenote, which had clear water but with no offerings visible under the water. The cave seemed to have been used in the early classic or preclassic period, judging from the style of its pyramid platform. It was probably a ritual site for the nearby preclassic site of El Naranjal, ten kilometers away.

Guatemala

Department of Petén

Cueva Aguacata, March 2008

As my Czech friend Tomáš Potfaj and I were coming to Tikal back from an excursion to the Cuevas Candelaria complex in Alta Verapaz, Guatemala, our guide Pablo Palanco suggested that we drive to the home of his brother Hector, who lived in a small settlement in the canyon of the Rio Chiquibul, not far from the Belize border. A few years before, Hector had discovered a cave, Cueva Aguacata (Avocado Cave), that had not yet been explored. So Pablo drove us in a Toyota pickup over several different *camina piedras* (rocky roads) east of El Chal in eastern Petén. As the roads got progressively worse, we came to an archaeological site, which was partly cleared. We drove across the cleared area, sometimes in a deep mud, and then down another very steep "road" to the canyon of the Rio Chiquibul.

This road, rather a rocky ditch, is called Volute de Diablo, and I was amazed by what our Toyota could do. We stopped on a flat spot some distance above the greenish river, shouldered our backpacks, and went down to cross the river. On the other side, we were welcomed by Pablo's father and his brother, Hector, who farm there with their families. Hector was willing to guide us to the cave the next day. We slept inside a schoolhouse on a concrete floor. The next morning we started in the dark at 5 a.m. After Hector's wife offered us a few tortillas with eggs and coffee, we mounted horses and started a rough trip over hills, down through valleys, and through pastures, *milpas* (maize fields), and patches of jungle. After three hours we finally came to a side valley of the river, tied the horses, and began hiking toward the cave. After about an hour of unbearable heat and travel through high grass full of ticks, we reached the mouth of the cave, partly hidden by brush.

On the slope down to the cave were remnants of Maya benches, most likely for spectators witnessing ceremonies at the cave's opening. The cave's ceiling had many huge stalactites. The width of the cave opening was spanned by a long masonry wall, approximately 1.5 meters high and over 1 meter thick. In the middle of the wall stood a huge stalagmite pillar sculpted like an idol. The wall looked like a stage for conducting ceremonies. The high, arched, and narrow entrance to the cave was on the left behind the wall. We immediately noticed pottery shards.

The cave was a high, narrow corridor with several large domes, and in the beginning it was easily negotiable. In the first dome was a speleothem altar and fire pits. Next to the altar was a hearth in the hollow of a stalagmite with some shards and charcoal. Although the cave had not been discovered by archaeologists, it had surely been found by looters: we observed signs of small-scale looting, such as holes dug with machetes. The cave seemed to dead-end here, but there was a complex side chamber on the right without archeological artifacts and steeply sloping to a lower level. We descended to a deep abyss, which I called the Silent Well, and which contained more ceramics, including partially preserved *ollas*. We continued through a large corridor and came to another high dome. Two auspicious columns delineated a platform, which according to Hector used to have a skeleton from a sacrificial victim, now destroyed by looters.

We found a nice *olla* in an alcove, placed to collect *suhuy ha*', (figure 3.9), several broken *metates* and *manos*, and piles of pottery shards. In a constricted corridor I spotted the large shards of a vessel with orange slip and clear glyphs. As I was photographing it, Hector noticed hidden in a crevasse a large orange plate with a clear, museum-quality painting. It had been broken in half, but the halves fit together well. On the perimeter of the plate were glyphs, most likely *pseudoglyphs* (decorative glyphs without writing). In the middle was painted a large snake and more glyphs (figure 3.10). It was the best piece of ceramic I have ever seen in any cave. We decided to hide the plate in the crevasse where we found it, cover it with rocks, and report it to the authorities. We eventually made it back outside and rode our horses back to Hector's house. There we took off our gear, crossed the river, took a refreshing dip, and climbed back to the Toyota. We were lucky to make it through Volute de Diablo as darkness fell.

Figure 3.9. Olla placed in a niche deep inside the cave to collect holy water dripping from a stalagmite. Cueva Aguacata, eastern Petén, Guatemala.

Cueva San Miguelito and Cueva San Miguel, November 2004

San Miguelito and San Miguel are two caves hidden in deep jungle west of Machaquila, in east-central Petén. They are located on opposite sites of Arroyo San Miguel. Guillermo, my driver, and I picked up a dirt road east of Machaquila before it switched to a jungle track. After reaching a small settlement, we found a local guide and two willing boys with machetes. We went along Arroyo San Miguel, crossing it several times, cutting through the bush deep into the jungle on an increasingly rough and muddy trail. *Espinos* (trees with sharp thorns) scratched us mercilessly. It did not take me long to

learn that these trees are poor handholds while climbing steep slopes.

Figure 3.10. Late classic plate with a painted snake. Its presence in this cave indicates elite use of the cave, perhaps by nobles from Caracol, Belize. We left the plate hidden in a deep niche, where we found it. Cueva Aguacata, eastern Petén, Guatemala.

Up on the slope was Cueva San Miguelito, with a narrow entrance and totally hidden by the jungle. A sizable creek issues from underground just below the cave's entrance, a sign of the cave's sanctity. The cave is a long catacomb with speleothems, and fairly easily negotiable. We found a few pottery shards, some with orange slip. A rectangular opening had been cut by

the Maya into the flowstone and led to an alcove, evidently an inner sanctum of the cave. We left the cave and continued across the valley through dense vegetation. We passed *achote* (annatto) trees, which produce a fruit yielding a red paint used by the Maya for facial painting. The red juice is still used by the Lacandon Maya as a substitute for blood in the *k'ex* sacrifice. A short climb on a steep slope above Arroyo San Miguel led us to the jungle-covered opening of Cueva San Miguel (also, Cueva de los Pinturas). To enter, we had to crawl through a low, muddy corridor. The cave is a long, narrow catacomb with many paintings on its walls, ceiling, and speleothems. The paintings are fairly primitive, drawn in a vernacular style, and most of them are rendered in charcoal or brown paint. Most of the paintings seem to have a ritual significance. One shows what looks like a monstrous Vision Serpent. As the name implies, Vision Serpents were often seen by the Maya during hallucinogenic and bloodletting–induced vision quests. In the serpents' gullets, the Maya often saw gods and ancestors. Vision Serpents as such embodied a conduit to the underworld, and their images are ubiquitous in Maya art (figure 3.11). Another painting showed a dancing warrior with a shield. Other pictographs are faces and handprints, looking as if drawn by a child. One painting seems to be an illustration of a stingray spine, often used for bloodletting. There are also paintings of schematic humans, perhaps in stages of excitement or trance or supplication. The caves were apparently used by people from an ancient Maya settlement that was located nearby.

Cueva Pusila, November 2004

Cueva Pusila is hidden in the deep jungle of east-central Petén, among the hills of the Sierra del Cerros near the Belize border, approximately ten kilometers south of Naj Tunich Cave. To reach it, my guides Edmin and several other Maya and I slogged almost seven hours through deep mud, unsure whether we were lost. As we struggled through a downpour, we walked into the village of San Domingo, where Nicolas, the local *alcalde* (mayor), volunteered to lead us to the cave.

Figure 3.11. Charcoal drawing of a monstrous Vision Serpent. Cueva San Miguel, eastern Petén, Guatemala.

After climbing a high ridge above the village, we found a few local Indians in a cluster of huts who knew where the cave was. The final stretch of our journey, lasting another two hours, led through virgin jungle with magnificent trees. For a good part of this time, we had to cut a trail with machetes; the trail looked like a tunnel in dense bush with daylight hardly penetrating the green cover. One of the guides saved me from a green snake that was about to attack from the branches above; he cut the snake in half with his machete. It was one of the most dangerous venomous snakes of the Central American jungle, the eyelash viper.

Figure 3.12. Limestone slab, an unadorned stela, blackened from ceremonial fires, and still venerated by the local Indians. Cueva Pusila, eastern Petén, Guatemala.

We finally descended a steep slope and came to the cave's magnificent opening in a massive gray cliff. Under the ceiling were countless stalactites, some covered by moss. At the right side of the opening was a large, crudely carved human head. We went down between jumbled boulders to the cave's relatively level floor. In the center of the opening was a huge karstic pillar. Behind it was a large chamber decorated with speleothems. The cave did not go very far, although it had some side chambers and corridors, some of them ending in abysses. On the left side of the cave were remains of glyphs, including a monstrous face drawn with black charcoal. Nearby was a high, unadorned stela cut into rectangular shape from a stalagmite (figure 3.12). It was quite similar to the stela in Naj Tunich Cave, and blackened by

ceremonial fires. With a sign of reverence, my Indian guides placed candles next to it. In the darkness and silence of the cave, with flickering candles and shadows cast on the stalagmites, it was a magical sight. I was not surprised that the local people still pray in this remote cave.

We did not find any other paintings, although a knowledgeable local Maya, Bernabo Pop from the village of Dolores (Pop discovered Naj Tunich Cave in 1979), claimed that there was supposed to be a panel of glyphs in Cueva Pusila. In the literature, this panel was assigned to San Domingo Cave, which was located elsewhere. It appears that this panel does not exist anymore; it was probably destroyed by seeping, calciferous water. Perhaps the few lines we saw in Cueva Pusila are all that is left of this panel. The glyphs had a ritual content, tied to supernatural events involving Old Jaguar Paddler God, and today they exist only in contemporary drawings by Dr. Andrea Stone of the University of Wisconsin.

Cueva Ixcun, November 2004

After an all-night rain, the road to the ruins of Ixcun from the village of Dolores was a sea of mud. I was driven there, again by my trusted driver Guillermo. Ixcun sits in a beautiful jungle setting on the bank of Arroyo Ixcun, the headwaters of the Mopan River. The ruins are large but unexcavated, with many mounds spread along the jungle paths. It must have been an important ceremonial center in the classic period. Between beautiful trees stand several stelae. One of them, about 4.5 meters high, is fairly well preserved and shows two dignitaries with humiliated, kneeling prisoners. Other stelae are mostly calendrical, still with well-preserved carvings. Interestingly, glyphs in Naj Tunich Cave indicate that Ixcun lords traveled to Naj Tunich for ceremonies.

We persuaded the guardian to guide us to caves located near Ixcun. One cave, Cueva Mosca, was in the slope of a steep hill and had two entrances, both through sinkholes 3–4 meters deep. Since we had no ropes, our guides cut down two trees and dropped them into the sinkhole. We then slid down on the trees holding *lianas* (vines), which were fortunately quite strong. The passage starting from the bottom of the sinkhole was not too difficult, but sometimes quite low, which forced us to crawl. There was a lot of broken pottery, including some bigger pieces with orange slip and painted with black

geometric designs. We explored other passages, although they became very tight and low. In a side passage was a sheer drop and at its bottom were a lot of shards, coming from vessels thrown down the abyss as offerings. We continued through a very tight passage. Even Guillermo's son, who was quite small, had a hard time getting through. We finally came to a beautiful, large chamber with a low ceiling and many small stalagmites growing from the floor. The calcite crystals were glistening in the lights of our headlamps, and it felt like being in a fairy castle. On the ground were several large *ollas* and other vessels, crushed by falling stalactites. Some of the pots had a black residue in them: the ashes from copal. This was the Crystal Chamber, the inner sanctum of Cueva Ixcun. In the center of one side alcove was a partially preserved three-legged black vessel. After more crawling we came to a small alcove with a vase standing in its middle.

Next to the entrance of the Ixcun ruins is a steep, jungle-covered hill, Cerro del Sur. At the bottom of the hill is another cave, unnamed and now partly collapsed, in which an underground river that is now dried out used to run. As we climbed this hill through the dense bush, between cliffs and holding on to tree roots, we noticed the remains of retaining walls and terraces. Higher up we reached a large artificial platform, evidently a former plaza. From this large platform there was another climb to a top platform, where originally a temple triad once stood. On this highest platform was a massive uncarved stela, now lying flat. Evidently the whole hill was sculpted by the Maya into a massive pyramid with several terraces and a temple triad at the top.[14] The sanctity of this temple-mountain was enhanced by the cave at its foot, with a water source in it.

Here was another example of sacred geography: the sacred, hollow Mountain of Creation and Sustenance, *Witz Mountain* (see figure 2.27). It was in such a place, the Maya believed, deep inside a cave in a mountain, that humanity was created from maize. Perhaps the fairy Crystal Chamber deep in Cueva Mosca was a place of origin. This ancestor cave within the mountain would also be a source of *suhuy ha*' originating from the speleothems. Other secret caves, with access to the gods of Xibalba and the dwelling places of ancestors' spirits, were nearby. This whole mountain-cave complex was in essence a cosmogram, a model of the Maya universe.

Department of Alta Verapaz

Cueva Jul'Iq and Cueva B'omb'il Pek, March 2006

Two significant caves, Cueva Jul'Iq and B'omb'il Pek, are located just west of the Cuevas Candelaria complex in the vicinity of the town of Chisec in Alta Verapaz. My local Q'eqchi' Maya guide, Abelino Migia Chib Yaxcal, and I started on an uphill trail to the caves leading past a small ancient Maya settlement. We entered Cueva Jul'Iq through a narrow crack in the ground near the base of a ridge. In the afternoon, cold air blows out of the crack, thus another name of the cave is Cueva de Aire (Air Cave). In the morning a shaft of sunlight also illuminates its entrance hall. The cave has a narrow circular passage with many interesting speleothems; it was once and still is a procession path for the Maya. A dome near the entrance had a large Maya altar, made by cutting the top off a huge boulder. Close to it was a modern Christian altar. A tunnel from this room led to another part of the cave where a late classic vessel had been placed on top of a natural stone hearth of three small stalagmites with a small obsidian blade inside the vessel. Dropping this small blade into the vessel ritually killed it. The vessel had most likely been used in a bloodletting ritual. The three stalagmites of the vessel pedestal may have signified the three stones of creation.

From Cueva Jul'Iq we continued on the steep path through the jungle to arrive at a huge sinkhole, eighty meters deep. We descended to the floor of the thickly forested sinkhole, which was blanketed with shards and obsidian blades, and located the entrance to Cueva B'omb'il Pek. A narrow and constricted corridor with two small window-like openings led to a narrow ledge over a fifty-meter-deep abyss. Even small Abelino had to squeeze hard to get through the windows. On a stalactite just above us were poorly preserved small paintings of two monkeys and a jaguar (figure 3.13). As in several other caves—including Naj Tunich Cave and Yaleltsemen, a remote cave in the Chiapas Highlands—the Maya had painted the images in nearly inaccessible places.

Figure 3.13. Eroded pictographs of monkeys and a jaguar painted on a stalactite above the edge of an abyss. Actun B'omb'il Pek, Alta Verapaz, Guatemala.

Belize

Mountain Pine Ridge

Many caves are hidden in the densely forested canyon slopes of the tributaries of the Belize River, cascading from the slopes of Mountain Pine Ridge in western Belize. Although the surface is karst, some rivers have gnawed the calcite crust all the way to its granite core rock. Many of the caves have astonishingly well-preserved cultural material (figure 3.14).

Che-Chem-Ha Cave, November 2001

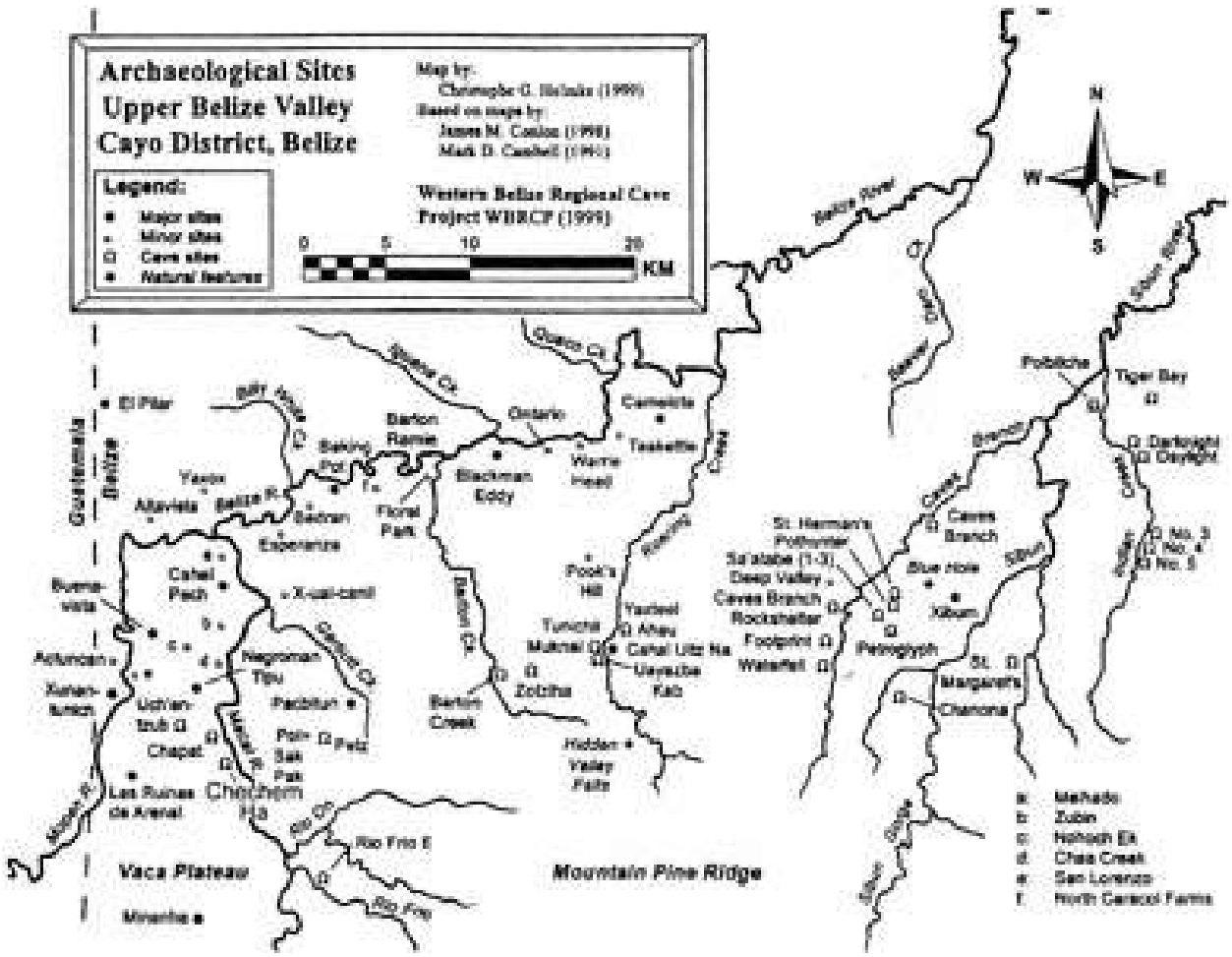

Figure 3.14. Archeological sites (caves and cities) in western Belize. Photo courtesy of James Awe.

Che-Chem-Ha Cave is on the property of Antonio Morales, about thirteen kilometers from Benque Viejo del Carmen near San Ignacio, high in the Rio Macal canyon. I went into the cave with guide Antonio Morales and his niece from San Salvador. The jungle trail leading to the cave goes steeply uphill. The cave, named for a local tree, is dry, but sometimes a bit muddy. It is only about three hundred meters long and consists of a simple tunnel with a few side chambers decorated with speleothems. Sometimes we had to squeeze through narrow openings or use slimy ropes or ladders to go up or down. The cave was very humid; I was soaked in a moment. There was a profusion of huge Maya pots and *ollas* on every ledge and in every niche, some with covers (figure 3.15). Perhaps they were used for storing the alcoholic beverage *chi*, consumed in the caves during rituals.

In one of the low side passages (designated Crawl 3) was the site of a ritual

sweatbath, including side benches and a hearth, evidently used in the preclassic to late classic period. Artifacts found there confirm that it was used for rituals involving veneration of earth deities. The artifacts included a vessel with a caiman motif, vessels for heating water, and water-worn pebbles brought from outside the cave, perhaps as offerings or to generate steam once heated. For the Maya, both caves and sweatbaths have sexual connotations and refer to the regenerative powers residing in the interior of earth.

Figure 3.15. Group of ollas on one of the ledges of Che-Chem-Ha Cave, western Belize.

In other niches were fragments of beautifully painted pottery, an indication of the elite's use of the cave, most likely from 600 BC to AD 900. At the end of cave was a circular chamber, beautifully adorned with stalagmites and stalactites, with an altar, marked by a ring of stones and an unadorned limestone stela in the middle. According to Antonio there were originally several precious painted pots and plates inside the ring of roughly hewn stones. Inside the stone ring is also a small speleothem with a cavity at the

top, evidently used for burning offerings. Later on, Antonio showed me several pieces of pottery that originally came from the stela chamber. He said he "saved" them from the archaeologists. One of them was a plate rendered in orange slip with the image of a bat. This image has a deep symbolic meaning. The Popol Vuh killer bats Camazotz bit off the head of Xbalanque in the underworld. Fossilized bones of bats, including extinct giant vampire bats, embedded in calcite shrouds, have been found in Cebada Cave, part of the Chiquibul Caves system in western Belize. These caves were known to the ancient Maya. Could these be the giant killer bats of the Popol Vuh?

Actun U'chem Tzub (Flour Camp Cave), November 2004

Actun U'chem Tzub is located at the western rim of Rio Macal Canyon several kilometers downstream from Che-Chem Ha Cave. The cave opening is near the canyon rim, and it is entered through its upper balcony. It is a dry cave with scalloped limestone formations. It is also a medium-sized cave with at least one walled masonry tomb, which has been broken into and looted. Near the cave entrance, up the slope on the left, is an alcove with a rectangular opening, which was cut into the flowstone. Above it are two alcoves hidden behind the flowstone curtain, which has the cut-out eyes and mouth of a huge monster mask. The Maya could have burned fires in the alcoves, lighting the monstrous mask's orifices (figure 3.16). As in many caves, broken pottery littered the floor. The Maya built several structures in this cave, including a small chamber dug into the slope and reinforced with stone lintels, *a cave within the cave* (inner sanctum).

Actun Chapat, Actun Halal, and Son of Actun Chapat, November 2004, March 2008

Figure 3.16. Giant monster mask in Actun U'chem Tzub. My guide Roberto placed two lanterns in the alcoves behind the monster's eyes. Another alcove (shrine) entrance is cut in the flowstone at the lower right corner. Western Belize.

These three caves are close to each other on the slope of a dry, western tributary canyon of the Macal River (see figure 3.14). In November 2004, my guide Carlos and I reached the first cave, Actun Chapat, after a long, steep hike from the road leading to Rio Macal dam. We entered the cave over a narrow ledge, high above a precipice. We climbed to an enormous upper chamber over the rockfall, and the hiking became easy on the smooth floor of the upper chamber. Further in, an alcove had been walled off. Inside was a looted tomb with some bone fragments still littering the floor. We found a small, sculpted stalagmite with an almost grotesque, snarling face of a dwarf (El Tuerto, an ancient motif with a deformed and twisted face, may have been associated with the rain gods; figure 3.17). The cave came to a fork; to the right was a window opening high in the ceiling, while to the left was increasingly more mud. Water probably pours into the cave in the rainy

season from the window or from a cenote. In the sticky mud were pottery shards and broken *metates*. The pottery fragments indicate the cave's ritual use between 300 BC and AD 1000. After a while we reached a cenote with very clear, green water. Almost transparent, atrophic catfish silently glided in the water. There were also small brown catfish, which probably came from a surface stream connected with the cenote. Curiously, the level of oxygen decreased on the other side of the cenote, and we penetrated no further.

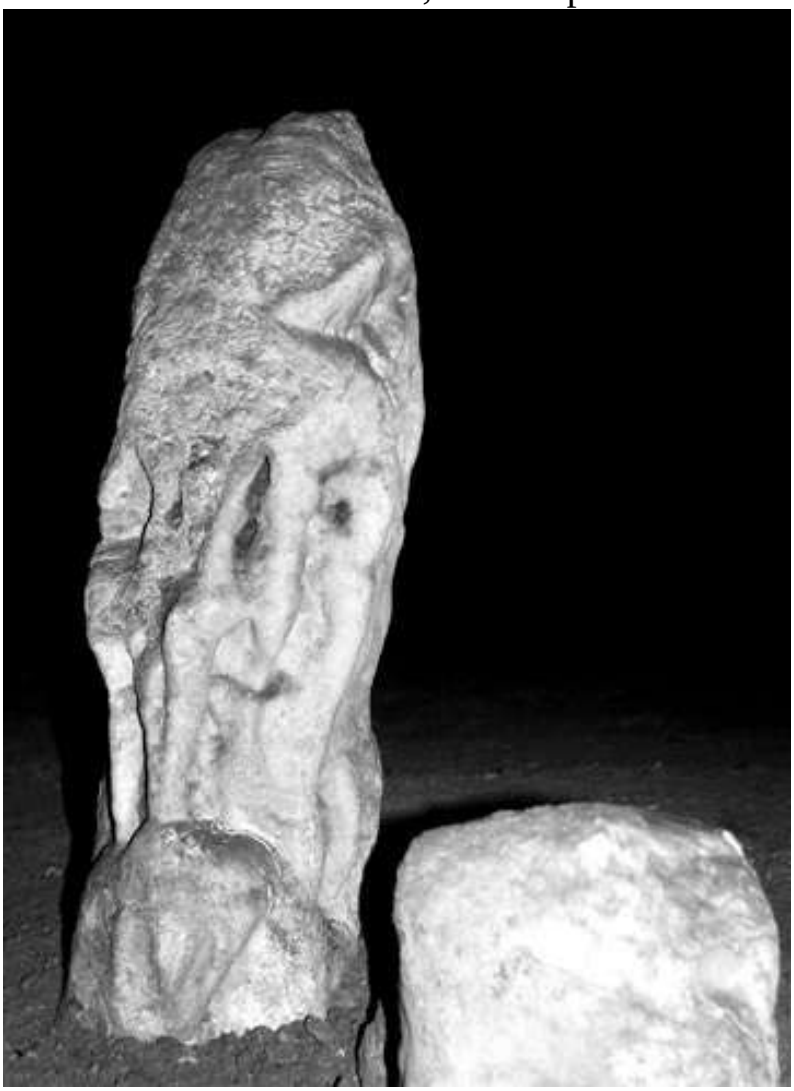

Figure 3.17. Carved stalagmite with the twisted face of El Tuerto. Actun Chapat, western Belize.

I came here again in 2008 with guides Marcos Cucul and Mario Perez, plus two more friends from the Xibalba Mapping and Exploratory Team, Brian Piese and Don Smith. We were determined to push farther into the cave, and

since we knew about the problem of a possibly low oxygen level near the cenote, we came equipped with an oxygen meter. It was May, the driest season of the year, and the water in the cenote was very low. We were able to swim across the cenote under stalactites that almost reached the water's surface. We measured the oxygen level; it was low, 18.4 percent, and down from a normal 21 percent.

Figure 3.18. A skull covered by a thick layer of silt and missing its lower jaw. The mandible was found embedded in the mud a few meters away. It evidently belonged to a young person. Pronounced cranial deformation was visible in the skull after cleaning. Since the teeth are not worn out by chewing food with grit from stone metates (used by the common people), he was probably an elite. Actun Chapat, western Belize.

As we struggled through the mud and swam across another small lake, we came to an intersection and took the right tunnel. We were now in a cave area that no modern caver had ever penetrated. Soon we reached a high rimstone dam, climbed over it, rappelled down some four meters and continued farther through a muddy tunnel. The oxygen level was now only 17.2 percent. If it

dropped much below 17 percent, we would be in danger of suffocating. The floor of the tunnel was muddy and apparently is regularly flooded in the rainy season. Embedded in the reddish mud we found first a human mandible with well-preserved teeth, then a skull with a flattened forehead covered with mud and missing its lower jaw (figure 3.18). Then we saw femurs, ribs, a pelvis, and other bones. Evidently the bones from a skeleton had been scattered over a relatively large area by floodwaters. The passage here started to slope down, and there were several bizarre rimstone dams, some with razor-sharp edges and small ponds.

Figure 3.19. Flowstone formation of a rimstone dam. Above it is the flat area where we found a stone blade (figure 3.20). Actun Chapat, western Belize.

We came to a flat area with a floor of small pebbles on the top of a rimstone dam (figure 3.19). Here it was: a large (over fifteen centimeters long) sacrificial blade made from chert (a hard, compact rock of microcrystalline quartz), and perfectly preserved (figure 3.20). The knife evidently stayed where it had been dropped, since it could not float, while the bones were scattered by the water. It seemed that we had come on the evidence of an ancient human sacrifice of a young elite person: well-

preserved teeth (not worn out by chewing food mixed with grit), a flattened forehead, and a knife, presumably used for decapitation. The air now became a little easier to breathe, but we could not check the oxygen level because our oxygen meter had stopped working. After a short hike we arrived at a large, beautiful underground lake with clear, green water. Time was running out, and it was apparent that we had to return without exploring the other side of the lake. But all of us wondered what lay beyond.

Figure 3.20. Stone sacrificial blade with serrated edges made from chert and still sharp after more than one thousand years in the cave. Actun Chapat, western Belize.

After our return we reported our survey to my friend Dr. Jamie Awe, Director of the Belize Institute of Archaeology. Because of the sensitivity of our findings and the danger that looters might get into the cave, he decided that the artifacts had to be collected from the cave immediately for safekeeping and forensic investigation. As I traveled home, the remaining part of our team ventured into the low-oxygen cave zone again to collect the bones and knife. Preliminary results of an examination by Dr. Gabriel Wrobel show that the bones found belonged to two males: the skull, mandible, and femur were those of a young, robust, and apparently elite individual. Rodent marks on the fibula may indicate that the bone had been moved to the cave

from a surface burial. The dark depths of this cave await more discoveries.

We hiked to the next cave, Actun Halal (Dart Cave), which was only a very short distance along the cliffs. Actun Halal is a very small cave, rather a rock shelter with two openings. According to the pottery found here, the cave was used by Olmecs, well before the Maya. Inside is a great mask carved from flowstone, partly covered by lichens. It has huge eye openings, nose, and mouth; it looks like a demon from the underworld (figure 3.21). In an alcove there is a sculpted altar and platform, inside of what looks like a small sanctuary.

Figure 3.21. Flowstone formation augmented by the Maya in the shape of a fearsome infernal monster. Actun Halal, Mountain Pine Ridge, Belize.

A short walk led us to yet another cave, Son of Actun Chapat. We went in for approximately three hundred meters before our progress was blocked by a collapsed ceiling at a small pool of red water stinking from decaying algae. To the Maya, this pool must have resembled the red, bloody waters of Xibalba. Around the pool there was an assortment of calcified human bones —including fragments of skulls, shoulder blades, and femurs—embedded in the rocks. Also, there were sawed-off stalagmites, some blackened by ceremonial fires, and several small deathheads carved from stalactites. This place must have also been important for human sacrifices, next to the red, murky waters of Xibalba.

Skeleton Head Cave, November 2005

Skeleton Head Cave is located in the foothills of Mountain Pine Ridge near the Maya village of San Antonio, Cayo (see figure 3.14). The cave is very close to the major ancient Maya town of Pacbitun, now covered by vegetation. I went to the cave with F. B., a Mopan Maya. The entry sinkhole is 10–12 meters deep. A single, slippery, and partially rotten log was standing in the hole. F. B. tied an old rope to the top of the log and we slid down the log, holding on to the rope; it was not a high-tech operation. It was also obvious that it would be much harder to get back up. The cave was muddy, slippery, and extremely humid, with a lot of wet bat guano on the floor. Soon we slogged into what turned out to be the main chamber, with speleothem decoration. In the middle of the chamber was half of a large calcified *olla*, while an alcove harbored several broken human skulls (figure 3.22). At this point I became less than enthusiastic about my guide as he tried to extract more money from me.

We went down a narrow, low passage with many sharp turns and branches. The passage sloped sharply down and was extremely slippery, making it difficult to crawl through with my backpack. After a while we reached a small alcove with a travertine pool. Embedded in calcite was a pile of human bones, including lower jaws and ribs—quite a spooky sight. They were probably from sacrificial victims. The bodies were deposited in an active spring, as a part of a supplication for rain. The victims must have gone down

voluntarily (perhaps drugged) through the constricted passages. Alternatively, Maya sacrificers could have dispatched the victims in the main chamber, where the skulls were, and then dragged the decapitated corpses down to the spring.

Figure 3.22. Cranium fragments hidden in a niche between stalagmites. Skeleton Head Cave, Mountain Pine Ridge, Cayo, western Belize.

We climbed, or rather slithered, back to the entry chamber. Now the problem was how to get out of the abyss. F. B. managed to pull himself up over the slippery log, holding on to a rope. He then pulled my backpack out of the cave, and I tried to climb out. I could not do it; the log was too slippery, and I spun around the rope, slipping off the log and jumping back to the mud. I was not really sure what F. B. was up to. When I could not see him, I thought he had gone away with my backpack, leaving me in the cave. It turned out that it was not so bad: F. B. had gone to cut another tree with his machete. He tried to lower this tree down with a rope. Unfortunately the tree trunk got wedged in the chimney and finally crashed down next to me. Luckily, it did not break. It was back-breaking labor to lift the trunk up, while F. B. was pulling the rope tied to it. We finally managed to lift the tree, with

its top resting in the chimney. Now I took my boots off and tried to climb again, inching up to the edge of the chimney. Finally, as I reached the edge, I wedged my knees into slippery holds and pushed myself up. I was out, exhausted, but happy. The thought of spending a night with skeletons and bats and with water dripping on my neck was not pleasant. I promised myself that this was the last time I would attempt such an adventure without proper equipment.

Actun Nah Beh, Actun Uayazba Kab, and Actun Tunichil Muknal, Roaring Fork River Canyon, November 2001, November 2004, March 2008

These caves are located on the edge of Tapir Mountain Reserve in the foothills of Mountain Pine Ridge, about a two-hour drive by jeep and a one-hour hike from San Ignacio, Cayo (for map, see figure 3.14). Actun Tunichil Muknal is probably the most famous Maya ceremonial cave in Belize. The cave lies in the narrow canyon of the Roaring Fork River, the same river that forms incredible High (or Hidden) Falls on Mountain Pine Ridge. Nearby are two more caves, Actun Nah Beh and Actun Uayazba Kab, as well as a small Maya ceremonial center, Cahal Uitz Na. The hike involves several crossings of Roaring Fork River, whose canyon contains nine other Maya ritual caves and some ruins, all hidden in dense jungle and largely unexplored. From 2001 to 2008 I visited several caves and ruins in this canyon repeatedly.

Figure 3.23. Slate stela with a stylized face. Ruins of Cahal Uitz Na, western Belize.

With two companions I hiked first to the ruins of a small ceremonial center. The ruins, which were only discovered in 1997, are mostly overgrown mounds, with some showing signs of looting. The main pyramid was a tall structure, with other edifices probably built in a triadic arrangement with a sloping ramp. On the top of one mound was a black-slate stela with a crude carved face on it, including round eyes, a hood, and a downturned mouth (figure 3.23). Perhaps it is the face of Chaak, the rain deity. It resembles, in miniature, the outside appearance of Actun Uayazba Kab nearby: two openings like eyes and a horizontal, shelf-like mouth (figure 3.24). The stela also has an association with a scary face carved outside this cave (figure 3.25). Not far from the Chaak stela was another uncarved stela with a hole drilled in the middle.

Figure 3.24. Twin mouths of Actun Uayaba Kab peering through the jungle, not unlike the eyes of the Chaak stela (figure 3.23) at the nearby ceremonial site Cahal Uitz Na. A large, difficult-to-access alcove is visible above the right entrance. Western Belize.

Figure 3.25. Carving of a scary face on a cliff facing a petroglyph boulder. It seems to be cognate with the face carved on the stela in figure 3.23. Actun Uayaba Kab, western Belize.

In the time of the Maya, with the valley deforested, all three ceremonial caves in the valley were visible from the temple. The temple stood in the center of a triangle defined by the three surrounding caves and built by the Maya as the naval of the earth. This is an excellent example of sacred geography.

An almost 2-meter-wide *sak be* 250 meters long led to the first cave, Actun Nah Beh (Cave at the End of the Road), a dry cave that is now completely devoid of artifacts. This cave with two entrances is a sloping, narrow corridor

including about a three-meter drop, which we negotiated using straps. The cave was filled with spiders, assassin bugs, and scorpions, and we were careful to avoid contact with them.

In the darkening jungle we crossed the river again and climbed a slippery slope to Actun Uayazba Kab (Cave of the Sorcerer's Handprint). In the darkness, the ramp below the cave was barely visible, but the cave's two entrances, looking like Chaak's eyes, stared out (see figure 3.24). High above the right entrance was a large alcove, not easily reachable. At the left entrance to the cave was a huge boulder with numerous petroglyphs. Predating other carvings, they are hard to interpret and may have an Olmec association. A grinning skull was carved on the same boulder, as well as footprints and another small, eroded mask.

On the opposite wall was an impressive carving of a large, grinning mask (a scary face), made to look even more ghostly by a thin cover of greenish moss (figure 3.25). In the next niche was a flowstone boulder, a possible altar stone. Some of the masks here are carved into rimstone dams, and in the rainy season water would flow over them, so the masks might have an association with rain deities. In the front part of the cave were burials with offerings. The burials were those of seven people and perhaps a tapir and a monkey. The burials had been placed under plaster floors made by the Maya and were overlooked by carved masks. Traces of charcoal were in the vicinity of the masks, or smeared over them, indicating the burning of copal incense near the carvings. Judging from the offerings of rock crystal, pyrite, and jadeite, the adult burials were those of shamans who conducted rituals in this cave. The accompanying interred infants could have been sacrificial victims who accompanied the sorcerers into the underworld.

My guide Francisco (aka Pancho) and I crawled further inside the cave. It was a tight crawl as the passage was quite low and muddy. Inside was a small chamber decorated with speleothems and excellent paintings of ghostly looking negative handprints (figure 3.26), the sun, and the ceiba tree, and some lance points. The Maya name of the cave, Actun Uayazba Kab (Cave of the Sorcerer's Handprint), derives from these painted handprints.

A few years later, in 2008, I was on the same trail again with Marcos Cucul and Burnaby Burgos. I wanted to know what was hiding in the alcove, high in the cliff above the entrance (see figure 3.24), and which was reported to be large *ollas*. As we climbed the steep slope toward the twin cave openings, we

spotted a young *barba amarillas* (fer-de-lance) crossing our trail. This is the most dangerous venomous snake in the Central American jungles; its victims usually die within two hours after attack. Thankfully, this snake did not seem aggressive.

Figure 3.26. Negative "sorcerer's handprint" in the inner sanctum of Actun Uayazba Kab. Negative handprints were generated by using a tube to blow charcoal around the hand, and these are perhaps the best prints to be seen in any cave in the Maya area. Western Belize.

Stuffing ourselves on sweet breadfruits that had fallen to the ground from ramon trees, we reached the cave openings, which were guarded by a troop of ten howler monkeys. Perhaps the monkeys liked the breadfruits as well. It became apparent that we could not reach the alcove above the right cave entrance by rappelling. The high cliff above the alcove was a massive overhang and the rappel would place us far away, helplessly dangling on the rope in the air. So we decided on a different strategy. Marcos would climb a huge stalagmite in the cave entrance under the alcove, traverse to a ledge under the alcove edge, and secure himself there with straps. Then he would negotiate the ledge by free climbing to reach the alcove. It was not easy, but

Marcos, climbing like a monkey, made it (figure 3.27). The alcove was about twenty-five meters above the ground. He pulled up the ropes, attached himself to the rock via straps, and then secured me so I could start climbing using my ascenders. Marcos and I had a difficult time communicating: he was hidden in the upper alcove where I could not see him. In addition, the howler monkeys started their 2 p.m. ritual, howling like crazy, so we could not hear a word. I went up and toward the end, and bracing my feet on the cliff, I finally pulled myself into the alcove. There, deep inside, were five giant *ollas*, some seemingly intact, and one with a greenish patina (figure 3.28). What was the Maya ritual that required bringing the jars to such a difficult-to-reach place? The Maya must have constructed a giant ladder just to get there.

Figure 3.27. Marcos Cucul scaling the chimney leading to Olla Alcove. Actun Uayazba Kab, western Belize.

Neighboring Actun Tunichil Muknal (Cave of the Stone Sepulcher) is another incredible cave. It has a large number of well-preserved artifacts, the remains of sacrificial victims, and fantastic scenery with an underground river, another River of Xibalba. The cave entrance is a key-shaped opening in

a mountain face from which a small river issues, a tributary of the Roaring Fork River (figure 3.29). In both 2001 and 2004 we swam through the deep pool at the cave's entrance and started to ford the swift river. Just past the entrance, high on the cliff, was a crude *cabezza piedra* (stone head) carved from flowstone. We then waded in the deep passages around boulders and through a rapids. It was pitch dark, but in one spot an opening in the high ceiling let some light into the abyss, and we could see the roots of a ceiba tree reaching down to the life-giving waters below. This was the second of the two entrances to the cave.

Figure 3.28. Giant ollas hidden in a high, almost inaccessible alcove. Actun Uayazba Kab, western Belize.

We reached Xibalba Beach, a small sand bar, and climbed a shelf above the river where, propped up by speleothems, were two slate stelae (figure 3.30). The first stela was carved—with serrated, scalloped edges—to resemble a stingray spine used for bloodletting. The other stela had a pointed end,

resembling an obsidian bloodletter. A small slate tablet also originally stood there, carved with an image of a scary face (figure 3.31). A codex painted pot was also found here, showing the presentation of prisoners and a dog (a guide in the underworld). The slate rocks came from outside the cave since the cave is entirely limestone. Bloodletting instruments (stingray spines and obsidian or bone lancets) were also found here, as well as *spondyllus princeps* (thorny oyster) shells, implements for collecting blood (figure 3.32). Evidently, this small alcove was a locus of bloodletting rites by the Maya elite. We were told that a Maya shaman from Yucatán had visited this place recently to offer a blood sacrifice, but only by piercing his finger.

Figure 3.29. Key-shaped entrance to the ritual cave Actun Tunichil Muknal (Cave of the Stone Sepulcher), western Belize.

Figure 3.31. Carved slate tablet, possibly late classic, from Actun Tunichil Muknal. The tablet is in the collection of the Belize Institute of Archaeology, Belmopan, Belize.

Figure 3.30. Two slate stelae standing in an alcove, site of bloodletting ceremonies in Actun Tunichil Muknal. Bloodletting ceremonies were common; blood was the mortar of Maya lives. For the Maya kings, every stage of life, every event of political or religious significance, and every period-ending required a blood sacrifice. This was the basic covenant between the gods and humans: the gods created people with their own blood, and the people would in turn give blood to the gods to nourish them. Gods and humans could not exist without each other. To obtain blood, men usually cut their penises, while women cut their tongues and ear lobes. Sometimes the drawing of blood was accompanied by pulling thorns through the wounds. Massive loss of blood led the Maya to a stage of altered consciousness, similar to a trance stage induced by hallucinogens or ritual enemas. In this way, the Maya could obtain visions and come into direct contact with their gods and ancestors. The most important bloodletting rites were those of the king, himself of divine origin. These bloodletting ceremonies were apparently conducted in the caves as well (see also figure 3.42).

We went down to the water again and continued upstream, swimming and fording. The cave, which is sometimes a fairly high tunnel, is beautifully decorated with stalactites. Bats nested in the cave, and crayfish swam in the dark waters, nibbling on our legs. Another kilometer upstream, we climbed a

cliff on the river's right using holds cut in the wall by the Maya and went to explore several chambers and alcoves with glistening flowstones, stalactites, and stalagmites. There was a great deal of Maya pottery, mostly ritually destroyed or at least damaged, sometimes with only small holes or chips, in order to be sent to the spirit world. Many of the pots were encrusted with calcite. There was an impressive *olla* altar, a flowstone formation with a group of several large vessels and *ollas* accompanied by offerings of sawed-off speleothems. A big stalagmite was carved to resemble the Moon Goddess, Ixchel. Other artifacts included a beautifully shaped vessel called a shoepot (figure 3.33), another vessel decorated with a monkey figure, *metates* (see figure 2.31), and beautifully polished greenstone ax heads, which could have been sacrificial weapons (figure 3.34). Many of the artifacts were placed in practically inaccessible niches and shelves between speleothems. The Maya must have enjoyed hiding their best pieces from archaeologists.

Figure 3.32. Offerings of shells and jade beads found under the Temple of the Smoking Mirror, Toniná, Chiapas, Mexico. The offerings were deposited during the dedication of the temple to "ensoul" the building at the end of the ninth century. Spondylus princeps (thorny oyster) shell was used as a receptacle for sacrificial blood. If scraped of its inner lining, the shell reveals a red underlayer the color of sunrise and rebirth. The underlayer may have also symbolized a woman's genitals. Spondylus princeps shells are often found in graves and sacrificial deposits. The mollusks also have hallucinogenic properties. This explains why the Maya attached great importance to this shell. These artifacts are in the Toniná Archaeological

Museum, Toniná, Chiapas, Mexico.

Figure 3.33. The shoepot, an elegant vessel placed in a small alcove in Actun Tunichil Muknal, Cayo District, western Belize. Note the small chip in the vessel rim, which disqualifies the vessel from use in this world.

Human skeletal remains, mostly skulls, also lay scattered about. The skulls, with their flattened foreheads and filed teeth (signs of the victims' elite status), came from decapitation sacrifices. Some of the skulls were calcified, their empty eye sockets rimmed by glistening crystals (see figure 2.7). In other chambers, normally not open to the public, we saw evidence of child and infant sacrifices: piles of tiny bones and small crushed skulls thrown into pits (see figure 2.8).

Figure 3.34. Cache of greenstone ax heads offered to Xibalba. Actun Tunichil Muknal, Cayo District, western Belize.

We climbed next to an alcove and entered other chambers with more artifacts. From there we squeezed through a narrow opening to a dead-end chamber, where we saw an almost intact skeleton of a young woman who died at the age of 18–20 (figure 3.35). This skeleton was also covered by calcite crystals that glittered in the lights of our lamps. The girl may have died of heart extraction and accompanying amputation of hands and feet. The spookiest sight was the skull, with its disarticulated lower jaw, seemingly in an expression of death agony. Nearby was a small stalagmite stump, evidently cut as a small altar. On top of it rested a large ax head made from greenstone. All together there were the remains of fourteen sacrificial victims in the cave as well as 110 vessels offered to the Lords of Xibalba. Most of the victims had been placed in rimstone dams, pools that would be seasonally flooded, which might have been part of the rainmaking ritual.

Figure 3.35. Skeleton of a young sacrificial victim lying inside the rimstone dam (upper right). Actun Tunichil Muknal, Cayo District, western Belize.

These two neighboring caves, Actun Tunichil Muknal and Actun Uayaba Kab, had different functions: while the former was primarily a sacrificial cave, the latter was more likely a mortuary cave. It seems that many victims died in Actun Tunichil Muknal during somber ceremonies to petition the Lords of Xibalba, namely Chaak, to avert the ninth-century collapse of the Maya civilization. But the gods were not listening anymore: the inhabitants of the land died or were scattered, and the cities fell silent and reverted to jungle. It took more than a thousand years to discover this cave and its dark secrets.

Actun Yaxteel Ahau, November 2005

Actun Yaxteel Ahau (Cave of the Ceiba Tree Lord) is one of several caves located in the densely forested canyon of Roaring Fork River, not far from Actun Tunichil Muknal. I visited this cave in November 2005 when the

tropical storm Gamma passed through the Caribbean, flooding many rivers and caves. I hoped to cross the river and enter at least the portal of this mysterious cave. My guide was Carlos Juan, a Mopan Maya, who was originally from San Benito, Guatemala, near Flores. His mother was killed during the civil war in the 1980s, and his father fled with the children to Belize. Carlos knows the jungle and is often sought by archaeologists for expeditions to difficult-to-reach caves.

We drove from San Ignacio in an old Chevrolet Suburban to the end of a jeep trail and started to hike into the jungle. We crossed Roaring Fork River. The water was very high and current swift, so our backpacks got half submerged. Fortunately we had good footing. About five hundred meters farther on, we left the trail and crossed the river again, to the river's right. This crossing was harder, with more current. Now we were sloshing through deep jungle with no trail. Carlos cut a trail with his machete, going through pools of water in the gloomy, dark-green bush. We next came to a tributary of the Roaring Fork River that flows out of Actun Yaxteel Ahau. We jumped into water up to our necks, holding backpacks above our heads, and forded about one hundred meters upstream. There was little current, and the creek had a firm bottom.

After slogging through more bush, we were soon on the shores of the creek again. This time, our progress was blocked by huge boulders with a swift current between them. We struggled upstream, swimming and wading, to reach a narrow slot between a boulder and cliff to enter the cave, but the current prevented us from getting through. We then attempted to cross to the stream's other shore instead. So we climbed a huge boulder next to the slot and rappelled down to the water and swam across the stream on an upstream site of several undercut boulders. After we reached the other shore, we could wade and see the actual entrance to the cave, with light filtering into it through a huge window (figure 3.36). The water rushed out of the cave through a sieve of mega-boulders. We walked by rimstone dams and again into the strong current, fording chest-high water to an eddy behind a big boulder, which had a pottery shard embedded in it. The cave is about 1 kilometer deep, but we progressed only about 150 meters. It was impossible to go farther upstream because the tunnel-like passage was filled with fast-moving water and there was no way around it.

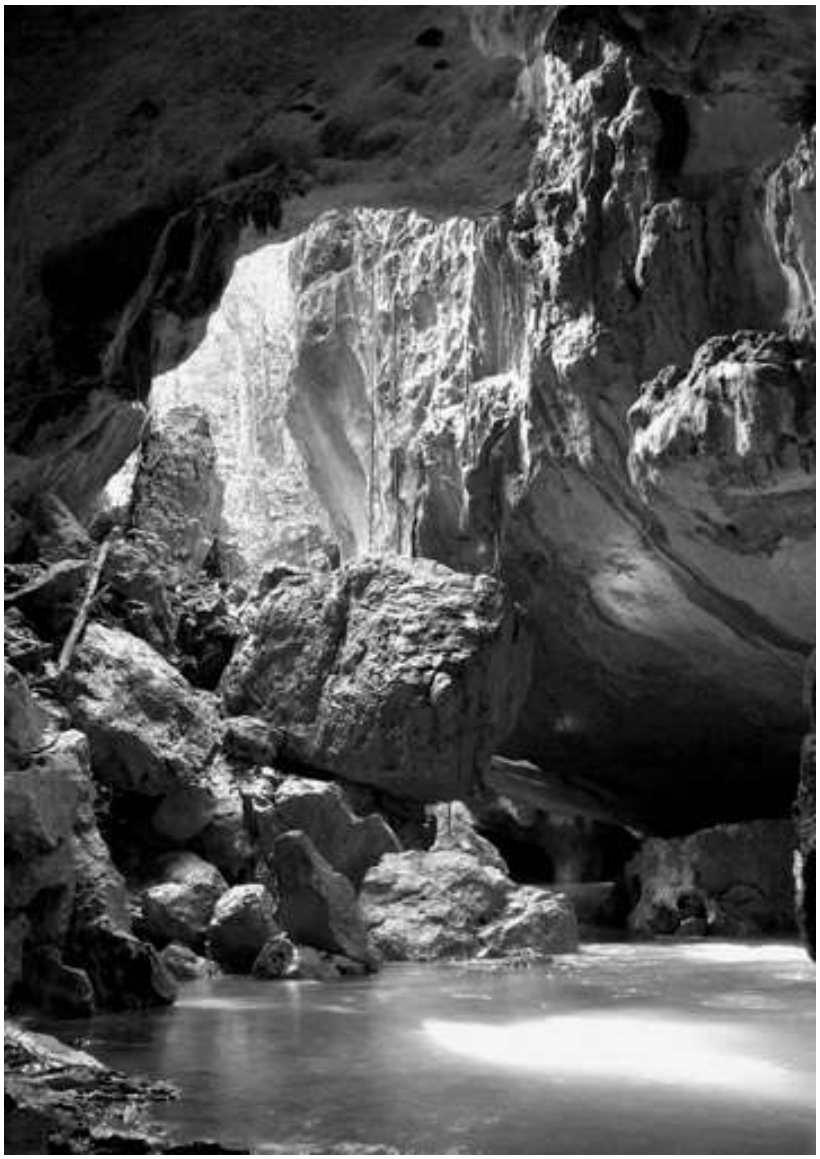

Figure 3.36. An underground stream issues from the depths of Actun Yaxteel Ahau (Cave of the Ceiba Tree Lord) in Tapir Mountain Preserve, western Belize. Light shines from a large window to illuminate the breakdown in the cave.

Not much is known about the cave's archaeology, but the cave was used ritually by the Maya around AD 250–900. The cave is extremely dangerous to enter, and it is possible to climb the high ledges above the river only at low water. There was one near fatality recently during an attempted exploration of the cave. Skeletons of as many as twenty sacrificial victims and pottery have been found on three almost inaccessible, towering ledges here. Other offerings found included broken pottery and jade beads. Chaak is evidently guarding his secrets well.

We returned the same way and were soon sitting on the top of a boulder, taking pictures. Then we heard it: sounds like human voices, coming from the depths of the cave, very faint, but persistent. It was quite spooky; we knew that nobody alive could be in there. We sat in silence, and then Carlos whispered to me, “These are voices of my ancestors from Xibalba. They are calling on us.” Perhaps it was the sound of water going through the underground channels. Shortly after, when we were sitting in the green gloom of the jungle, he asked me, “Stan, do you believe in Maya gods?” In Actun Yaxteel Ahau, we were in Xibalba. Fifteen hundred years ago, the Maya must have felt the same way. Moreover, I recalled my friend Ted, a former British commando and my guide on previous trips, warning me about Actun Yaxteel Ahau: “There is something strange about this cave, and people are changed after going there. Be careful and don’t go too far, you may not make it back.”

After a rather short struggle through the bush, we had to cross Roaring Fork River again. This time it was more difficult, since the river was wide with a strong current. We strung a rope across and by holding to it managed to get across with our backpacks. Nevertheless, Carlos was swept down and I caught his backpack from the shore.

The dense jungle in the canyon of the Roaring Fork River hides more caves, many yet unexplored. One of them is Tarantula Labyrinth, located not too far from Actun Yaxteel Ahau. A plain slate stela was found in this cave, indicating that the cave was used for ceremonies by Maya elites. The uncarved stela was placed in a leveled inside chamber. This cave is very dangerous, with a collapsing ceiling.

Cave Branch Area, Foothills of the Maya Mountains

The northern slopes of the Maya Mountains are drained by the Sibun River and its tributary, Cave Branch River. The karstic foothills are honeycombed with caves, many with archaeological significance.

Midnight Terror Cave, March 2008

This cave is not far from the Belize capital city of Belmopan, but it is hard to get to. The cave was actually discovered by looters. A Mennonite lad named Ruffus, who led us to the cave from the Springfield Mennonite settlement, told my guide Marcos Cucul and I the story of the incident. The cave is

accessible only by rappelling down 20–25 meters. During one looting foray, one of the looters fell during the ascent. He broke his jaw, lost a few teeth, and suffered other injuries as well. The looters did not have rescue equipment, so they went for help to the Mennonites. These local people recognized some of the looters, who had previously robbed them at gunpoint. Nevertheless they went to help them. All together fifteen Mennonite men were involved in an all-night rescue of the looter. Thus the name of the cave, Midnight Terror. The looter, a Guatemalan, was brought to the hospital, authorities learned about the existence of the cave, and the cave was then partly explored by archaeologists. Charges against the looters were never filed because it is against the Mennonite religion to testify in court. The cave is not open to visitors, but I was able to get special permission from the Belize Archaeology Department. According to Marcos, there is a large, unexplored Maya site not far from the cave, with its location known only to looters. Some of the site's temple mounds reportedly reach above the jungle canopy.

On a rainy day, we drove from Belmopan on a muddy road to the Mennonite settlement. The local Mennonites are *Altekoloniers*, speaking old German, and traditionalists, who don't use any motor-powered equipment. They ride horse-drawn buggies, and their sawmill is powered by horses. Ruffus was willing to guide us to the cave. A maze of muddy logging tracks around the village made orientation difficult. After an hour of slogging through the mud we climbed a steep hill through the dense jungle and soon stood by the mouth of the cave. We could barely see the bottom of the black abyss even with a powerful diving light.

We set up the rope system, and I was the first one to rappel down so I could take pictures from the bottom. First I went down along the cliff and stalactites, then straight into a twenty-meter free rappel before landing on a steep slope at the bottom (figure 3.37). The cave appears as a high dome with many labyrinthine passages. We saw a lot of broken pottery, as well as large *ollas*, a broken *metate*, a greenstone ax, burned bones, and one human lower jaw. In one ditch were piles and piles of broken pottery, evidently thrown down the abyss as offerings.

Figure 3.37. Guide Frances Cucul rappelling to the depths of Midnight Terror Cave, Belize.

After a bit of exploration, we descended a slippery pit to a lower cave level and continued through a tight squeeze to a sloping corridor. There were clay steps here cut into the slope leading to a large chamber with signs of running water during the rain season. A few calcified human bones, almost turned to speleothems, littered the ground, and we soon located the narrow entrance to a small chamber. None of us, except perhaps Marcos, were prepared for the horrible sight on the floor of the chamber: piles and piles of human bones, including skulls with empty stares, lying in the reddish mud. It was difficult to determine how many skeletons were there, since the bones had moved

around during the seasonal floods. And there were many more skeletons in the neighboring tight chambers.

Figure 3.38. Four skulls embedded in reddish mud in one of the death chambers in Midnight Terror Cave, Belize. Note the perfect teeth, probably those of elite victims. During the rainy season, the piles of light human bones in the alcoves are probably shifted by floodwaters. The bodies were deliberately deposited within reach of water.

The catacombs continued deeper and deeper, and still the bones continued (figure 3.38). So far eighty-four skeletons have been identified, eighty adults and four children, but the actual number could be higher. What happened here? Was the cave a burial ground, or did the skeletons belong to sacrificial victims? Was the cave a place for secondary burials? The research into this cave is just beginning, and it is impossible to say what actually happened. Visible signs of bone cutting argue that these bones came from sacrifices (see also figure 3.41). Also, some of the bones appeared to be burned; charcoal residues in the fire pits may point to a mysterious *puluy utz'itil* ritual conducted on a *k'atun* anniversary (as in Piedras Negras and Toniná; the ritual involved entering tombs and burning the bones within).[15]

We spent almost a whole day in Midnight Terror Cave. By the time we

climbed out of it, the jungle had darkened for our hike through the deep mud back to the truck. It was Good Friday 2008, more than one thousand years from the horrible events that transpired here. I will never forget the sight of the empty stares of the deathheads in Midnight Terror Cave.

Plastered with mud, we arrived at the upscale hotel Bullfrog Inn, in Belmopan, which prides itself as a hotel for diplomats. It was amusing to wash our dirty clothes in the bath tub.

Ceremonial Cave and Footprint Cave, November 2005

A large number of Maya ceremonial caves (see figure 3.14) exist in the watersheds of the Cave Branch and Sibun rivers, which drain the northeastern side of the Maya Mountains. The Sibun River flows to the Caribbean Sea, while Cave Branch River, which repeatedly goes underground, is its tributary. The course of Cave Branch River is quite complex. As it comes down from the hills, it splits into two rivers. The right fork, called Blue Hole Cave River, takes most of the water in the dry season; only in the rainy season does the entire waterway fill up. Blue Hole River goes through a succession of caves, including Petroglyph, St. Herman's, and Blue Hole Cenote. Past the cenote, the river goes underground again to re-emerge from another cave of the system, and then joins Cave Branch River. The last cave of the system is Jaguar Paw Cave. Footprint Cave River, which comes out of Footprint Cave, is yet another tributary of Cave Branch River.

To explore Ceremonial Cave, my friend Tom Pernar and I, joined by Maya guide Esperanza, first rode an aging tractor from Cave Branch Lodge before crossing the swift-flowing Cave Branch and Footprint Cave rivers to begin our hike on a steep and slippery jungle trail. After approximately 150 vertical meters, we attained a high ridge and then traversed to a very small opening into the cave. Somewhere on this ridge, not far from the cave, lies an unexplored ruin, with three plazas and temples. There are still lost cities of the Maya in the jungle.

Figure 3.39. A sinkhole, approximately fifty meters deep, formed by Ceremonial Cave's collapsing ceiling in the hills above Cave Branch River at the foot of the Maya Mountains, western Belize. At the bottom of the sinkhole is an extensive system of caves that were used ritually by the Maya.

We crawled inside the cave and soon emerged in a big sloping chamber with speleothems. The ground was littered with pieces of broken pottery. The cave was short, and another crawl led us into an alcove with a beautiful *olla* placed as an offering in its center. From the alcove we entered a huge sinkhole (figure 3.39). Looking back, it was obvious that the Maya had artificially enlarged the opening of the alcove by cutting the surrounding stalactites. The entryway actually looks like a *boca de serpiente* (snake mouth).

Figure 3.40. Broken polychrome vase found at the bottom of the sinkhole. The volutes may signify blood, or in more general terms, an underworld dimension. Ceremonial Cave, Cave Branch, Belize.

The sinkhole is very deep, perhaps more than fifty meters, with a small opening to the sun high above and the roots of trees and lianas reaching the bottom. Its sloping floor is a world of its own, covered by giant ferns. We located several large pieces of a broken tripod vessel, painted with large red volutes, most likely a piece of funeral codex ceramic (figure 3.40). The Maya had built terraces and retaining walls in the bottom of the sinkhole; their remains are still visible. On the other side of the sinkhole were huge, bizarre, karstic formations, and behind them several alcove-shrines with many ceramics, *metates*, and *manos*, and human bone fragments, including vertebrae and ribs with clearly visible cuts (figure 3.41). These sacrificial victims may have been quartered as part of a mysterious, savage ritual, perhaps related to the practice of ancestral bone cutting (the early classic

period Hauberg Stela shows the bodies of sacrificial victims cut in half at the waist).

Figure 3.41. Fragment of a large dish with human vertebrae showing evidence of cutting. Ceremonial Cave, Cave Branch, Belize.

Footprint Cave is located inside the same hill, which also hides a much higher entrance to Ceremonial Cave. As noted, an underground river (Footprint River) flows through Footprint Cave, so we used inner tubes to explore the cave. We progressed upstream in the river to the mouth of the cave. High on the ledge in the cave were two human mandibles embedded in limestone. Perhaps they came from victims of sacrifices to the God of Number Zero, or the Patron of the Month Pax, a sacrifice that entailed the removal of the lower jaw from the living victim.

Going upstream we reached a small gravel bar in the river, barely out of the water. We climbed between speleothems into chambers decorated with many karstic formations. In the domes there was evidence of fire pits and broken

pottery and small obsidian blades used for bloodletting (figure 3.42). Returning to the river, we observed a school of bluish, atrophic catfish. They made me think of the story in the Popol Vuh in which the Hero Twins morph into catfish after their escape from Xibalba.

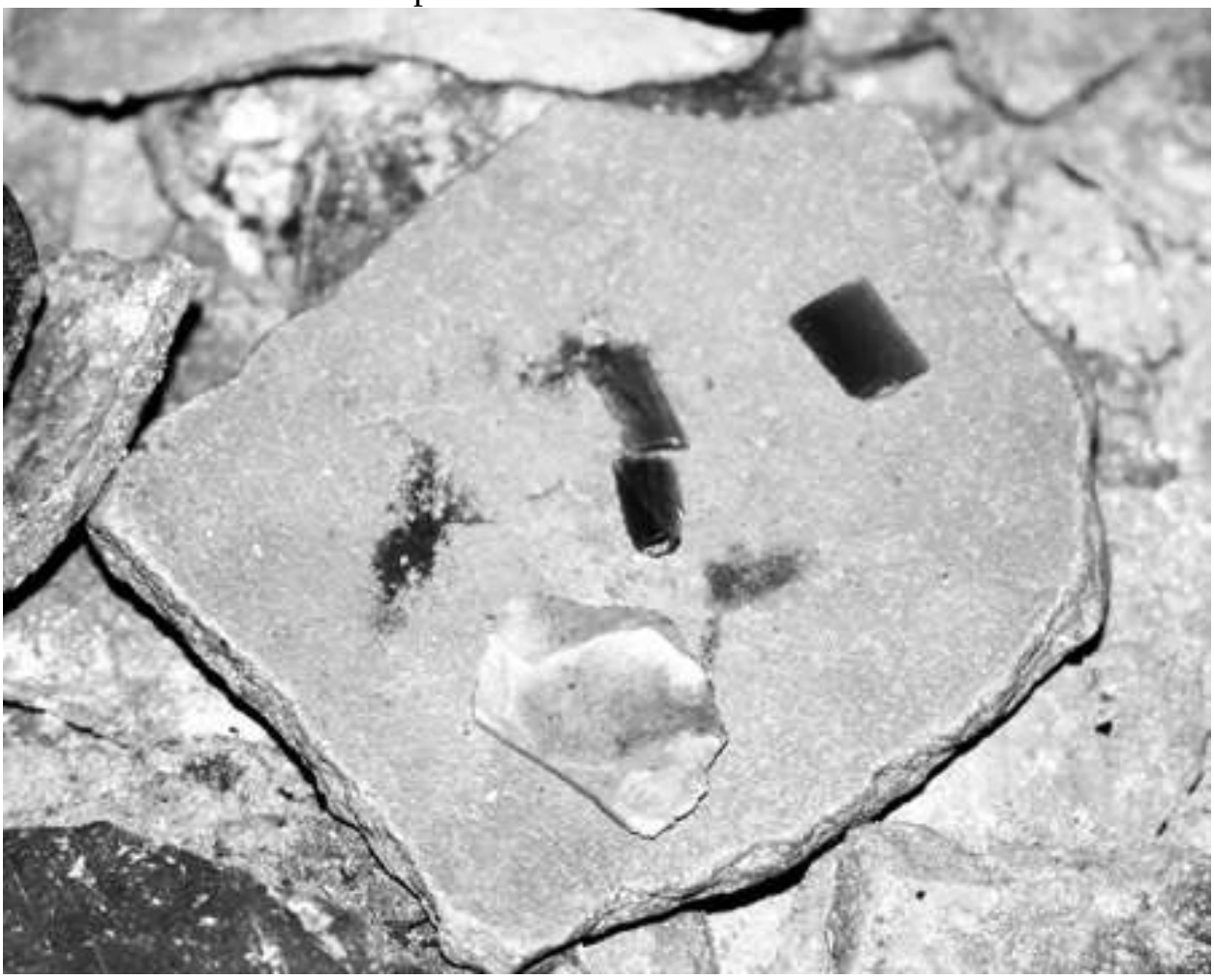

Figure 3.42. Obsidian bloodletters, silent witnesses of ancient rituals, found deep inside Footprint Cave, Belize.

Working hard against the swift current, we finally reached a 1.8-meter ledge on the river's left, where the Maya had cut holds to facilitate climbing. On the wall of the alcove was a carved and painted stucco mask of an underworld deity with a flat platform on the top, serving as a base for fires (figure 3.43). The mask had an object (painted brownish red) sticking out of its mouth, perhaps a cigar. The mask may be that of one of the chief underworld gods, God L, who is always shown with a cigar in his mouth (see figure 1.4). There was a line of fire pits in front of the mask, which could

have provided illumination for ceremonies. Evidently the Maya floated firewood into the cave on rafts or in canoes. A stalagmite, facing downriver, seemed from the left to have the outline of a woman holding a child, while from the right its profile resembled a pregnant woman. This could have been a crude fertility idol, augmented by the Maya, and similar to idols in other caves. Local area folklore says that a woman who could not have a child could go to pray in the cave. If she had children after that, the first born had to be sacrificed to an underworld god.

Figure 3.43. Mask of an underworld deity (perhaps God L; see figure 1.4) in Footprint Cave, Belize. The god seems to be holding a cigar in his mouth.

Petroglyph Cave, March 2008

Guide Marcos Cucul and I drove through an orange plantation owned by a

Canadian company along Cave Branch River to the trailhead for Petroglyph Cave. The hike was a steep climb on a well-maintained trail, as the people from Cave Branch Lodge take customers to rappel into the sinkhole. As we reached the ridge, we could see the huge sinkhole between the trees.

Figure 3.44. Delicate, small figurine carved from a seashell. We found it near the entrance to Petroglyph Cave, Belize. It is still there.

The cave starts at the bottom of the sinkhole, called Black Drop. We went down over the cliff, secured by a rope, to reach a short aluminum ladder that took us to the bottom of the sinkhole. We hiked farther down to the huge mouth of the cave, which opened at the lower end of the sloping sinkhole floor. On one of the terraces were petroglyphs, carved in soft rock, all geometric designs, their meaning now lost. We also discovered a small shell figurine, hidden in a rock crevasse (figure 3.44), undoubtedly a votive offering. We kept going down through the twilight area of the cave and over natural terraces, sometimes using steps and footholds carved by the Maya. We also noticed a few ceremonial platforms with firepits.

Figure 3.45. Skull of a female sacrificial victim with a stalagmite growing from it. In a few hundred years the stalagmite may form a column with its opposing stalactite. Petroglyph Cave, Belize.

We finally reached Blue Hole Cave River at the bottom of a steep slope and continued in the river downstream. The river had some current, but in the dry season the river's volume is low, and it was easy to hike on the sandy bottom. After several hundred meters we climbed a muddy slope to reach a

ceremonial chamber high above the river. The mud was quite slippery; we made one step up and then slid back, over and over again. We finally reached a huge upper dome with many karstic formations. In a small niche between speleothems we located a female human skeleton with a small stalagmite growing from its head (figure 3.45). The alcove was just above the water level of a pool, so in the rainy season the skeleton is under water. A short hike up through a forest of stalagmites took us to a huge, beautiful column. In a niche was a calcified skull, but with a rusty color that was different than the color of the column (figure 3.46). In the front of the column was a pit with calcified femurs and other bones, perhaps belonging to the same individual. The bones had a completely different color than the rusty-colored skull, which had evidently been placed in the alcove by the ancient Maya. Was this another unknown ritual? As we were climbing from the cave back to the daylight, a veil of mist rose from the river to the cave opening: Chaak was riding his cloud out of his cave (figure 3.47).

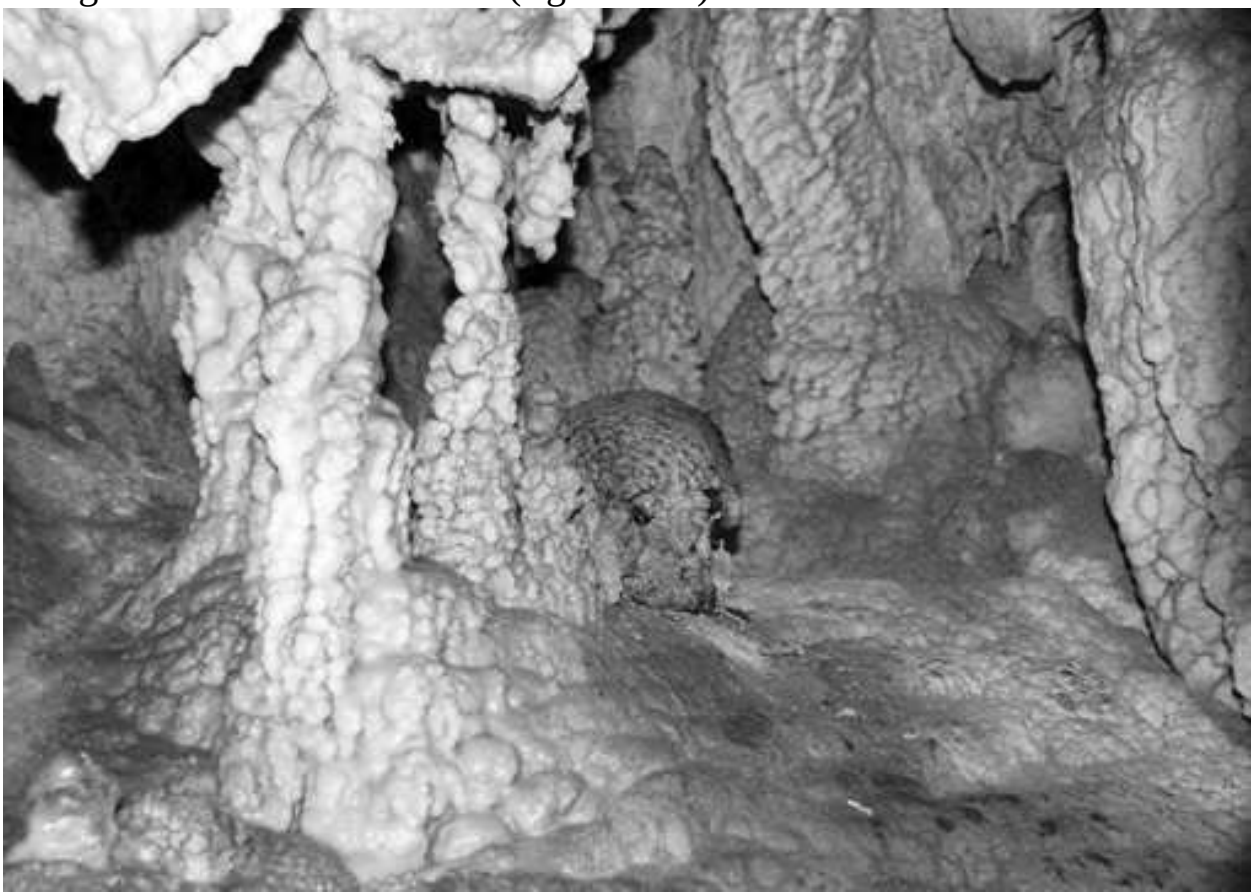

Figure 3.46. Calcified skull deposited in a small niche in a karstic column. Note the different shade of the skull and the speleothems. Petroglyph Cave, Belize.

Actun Chanona, March 2008

Actun Chanona is the largest cave in the Hummingbird Karst, which borders a highway of the same name and the northeastern-most foothills of the Maya Mountains. To get to the cave, guide Marcos Cucul and I started the long steep hike from the Sibun River in a steady rain on a barely noticeable trail. We climbed under limestone cliffs, followed them for a while, and finally reached the top of a ridge. We followed the ridge north for a while, made a short descent to its other side, and soon saw the mouth of Actun Chanona.

Figure 3.47. Mist rising from the river deep in the abyss of Petroglyph Cave, Belize.

The cave is actually a tunnel with two entrances, and we came first to its eastern entrance. This massive entrance with its stalactite row of teeth could easily be envisioned as the fanged mouth of the Earth (*Witz*) Monster. In the cave opening was a deep sinkhole with a creek running at the bottom. As we descended around the sinkhole on the left, we saw a sculpted monster mask carved into the rock, again in the twilight area of the cave. The trail then ascended to a terrace from which it entered into a small opening, the entryway into the cave proper. A strong stream of cold air rushed from the cave. We soon reached a series of big rimstone pools in a large, speleothem-decorated dome. The pools were spectacular, with the reflection of stalactites and stalagmites and the narrow rimstone dams between them (figure 3.48). We climbed between pools on muddy and slippery slopes and reached a narrow passage between stalactites. A recent inscription, *Dios* (God), occupied the rock wall, and one stalactite had pictographs, the geometric designs rendered in fading black, which looked like Maya drawing.

Figure 3.48. Rimstone pool near the entrance of the cave, mirroring standing speleothems. Actun Chanona, Hummingbird Karst, Belize.

We descended the slope to a large dome decorated with karstic formations.

We noticed a column with a small alcove inside; it was blackened with soot from ceremonial fires. The hearth contained broken, blackened pottery shards. It was apparently a small shrine, where the Maya burned offerings, including ceramics. The Maya burned speleothems and pottery shards at the conclusion of their rituals to release the dangerous power these objects accumulated during the ritual. For instance, to the Lacandon Maya, the burning of old incense burners in a cave symbolizes the death of the vessel, after which the vessels are called *ubakkel ak yum* (the bones of our Lords).

Later we found two human skeletons embedded in reddish mud. The upper one was better preserved. The upper skeleton, placed perpendicularly between two stalagmites, was also more interesting since it had not been evidently disturbed by flood waters (figure 3.49). Its skull was placed face down in the mud and was missing its mandible. The lower jaw with its filed teeth (most likely that of a young elite) was aligned with the other bones in a straight axis with the skull. Possibly, the jaw was placed there purposely by the Maya after an elite sacrificial victim's death by a lower jaw removal. As noted above, the finding of a human lower jaw separate from the rest of its skeleton in a cave may indicate removal of the lower jaw from a living victim to honor the God of Number Zero, or the Patron of the Month Pax (or the Maya Night Jaguar who is always shown lacking a lower jaw). Classic period codex vase K555 (the Vase of the Ten Gods) shows, among several supernatural beings, a human-like dwarfish creature having its lower jaw removed by the god Chaak with a large stream of blood gushing from the victim's mouth. The possibility also exists that these bones were brought by the Maya from outside for secondary deposition in the cave. This skeleton was also deposited under actively dripping stalactites.

Farther down, we located a large granite *metate*, obviously brought from the outside because there is no granite in the cave. Other scattered offerings included ceramic shards, freshwater snail shells, human bones (some burned), bird bones, the bones of a small rodent, and a small piece of a human skull cut into a triangular shape (possibly a fetish).

Figure 3.49. Placement of a skeleton between karstic columns. The mandible is visible in the upper part of the picture; the skull placed face down is in the front. Actun Chanona, Hummingbird Karst, Belize.

The huge Great Platform (figure 3.50) is 5–6 meters high and about 30 meters long. It looks like a large peninsula if looked at from above. It was built from a natural, smaller mound. The Maya filled big cracks in the surface of the platform with boulders to form an even surface, presumably as a locus for ceremonies. Above the platform is a balcony, and under the balcony is an entrance to an artificial cave, a holy of holies, a cave within a cave. There are several entrances to this cave, some from the top of the balcony as well, so it looks like the Maya constructed a whole system of catacombs.

This system may have served as a place for secret ceremonies. Perhaps the catacombs served for sudden appearances and disappearances of actors during ceremonies performed in the depths of the cave under torch lights.

Besides the Great Platform (and the tunnels underneath it), the Maya constructed a host of modifications to this cave: small platforms, cut steps, pathways, walls, and altars. Around the platform were many large, broken *ollas*, some totally calcified. A ceramic drum and the figure of a ballplayer were recently found here, evidently used in a ritual imitating thunder. The ritual, involving sympathetic magic, may have included a thunder-like noise inside the underground dome and splashing water. The placement of the figure of a ballplayer here—wearing hip hoops for protection during the game—signified the connection of the game with the underworld. The figure was evidently used as an ocarina.

Figure 3.50. The Great Platform in Actun Chanona, Hummingbird Karst, Belize, built by the Maya with a significant effort as a ceremonial stage, about one hundred meters inside the cave. This picture was taken from a balcony above the platform, and from here the platform looks like a peninsula jutting into the cave dome. The shrine for the cacao metate (figure 3.51), in the shape of an inverted V, is visible at the upper right of the platform.

Above the platform, on a small, leveled balcony, was a large *olla* with a crack in its side. Another large *olla* was placed in a niche high on the cliff above. The spot was accessible only by a difficult climb through a chimney. We also located a broken *metate* with red stains from cinnabar (mercury

sulfide). Many funeral objects with incised designs such as bones, ceramics, and jade jewelry and shells were brushed by the Maya with powdered cinnabar to sanctify them for burials. Cinnabar was also used to paint tombs and sarcophagi and to coat the bodies of the deceased and their burial shrouds. Most of this cinnabar must have come from mining underground veins, or in the Maya view, from the underworld. Cinnabar's bright red color, the color of sunrise, symbolized resurrection. That the color red should also symbolize death and sacrifice as well as rebirth is a seeming contradiction, and it pervades Mesoamerican religions: the harmony of opposites. This was a unique find because it had not been known that the Maya used cinnabar in caves.

Figure 3.51. Small shrine built from two flat stones and containing the metate for grinding cacao beans. It stands on the top of the Great Platform in Actun Chanona, Hummingbird Karst, Belize.

We observed a shrine on the Great Platform built from large flat stones in the form of an inverted V (figure 3.51; see also figure 3.50, middle right). Inside was placed another large *metate* and *mano*, this time to be used for the grinding of cacao beans. There is an underworld link to cacao as a drink for the deceased. We noticed a fire pit on the top of the platform, with three hearth stones, representing three of the stars of Orion, a symbol of creation. Judging by the archaeological content still remaining here, Actun Chanona was a very holy cave, possibly serving people from the Hershey site, located father downstream in the valley of the Sibun River.

Toledo District

Blue Creek (Hokeb Ha) and Uxbenka Caves, November 2005, April 2008

The rainy southern Belize Toledo District is one of the wettest areas in Central America. It is an area of the steep foothills of the Maya Mountains, deep valleys, rivers with waterfalls, and limestone cliffs with many caves. Hokeb Ha (Blue Creek) is a large river that comes out of a huge cavern just upstream from a Mopan Maya village of the same name (figure 3.52).

In November 2005, heavy rains flooded Blue Creek, sending it thundering over its falls and cascades, and there was no way to enter Blue Creek Cave. Sylvano Sho, a local Mopan Maya, and I hiked uphill through the jungle, in the general direction of the cave. At a small clearing was an opening to the water cave deep below. Evidently this opening led to a chamber just under a subterranean waterfall in the cave. Although the underground chamber was almost thirty meters below the ground, mist rose out of it like a cloud of smoke. The cave is very long, perhaps fourteen kilometers. It is actually formed by the Rio Blanco as it goes underground at the cave Rok' Eb Ha near the village of Santa Cruz on the other side of the high karstic hills towering like ramparts above Blue Creek village. The huge cliff above Blue Creek Cave is honeycombed with more caves that were used ritually by the Maya. Sho Cave is one of the caverns high up in the cliff above the river, named after its discoverer, Sylvano Sho. Sylvano described the cave as follows:

Figure 3.52. Blue Creek coming out of Blue Creek Cave in the Toledo District, Belize. This picture was taken at the end of the rainy season when the water level was still very high and it was impossible to enter the cave. I came again in the dry season and was able to swim into the cave.

The cave runs for a long time, perhaps for about two hours more-or-less horizontally, in places quite tight until it reaches a crystal chamber with glistening speleothems. In this chamber I found a flat, stone-lined grave of a small child. The skeleton had a jade bead necklace. I was advised by my uncle to bury the child at the Christian cemetery, that the spirit of the child wouldn't hound me. I did so, carrying the bones and necklace in a cardboard box out of the cave, and buried it at the cemetery. The cave continues with a steep cliff, which is perhaps fifty meters high. This has to be climbed. In another chamber there is an old Maya altar, evidently a stalagmite stub. There are residues of burned copal on the altar. Another terrifying fifty-meter drop leads down to the more-or-less level cave, which comes to the earth's surface in a cliff on the right side of Blue

Creek Cave, Hokeb Ha (Sylvano Sho, personal communication).

The virgin jungle around Blue Creek village hides several Maya ritual caves and perhaps yet-undiscovered ruins. One of the caves is Pottery Cave, a difficult 1.5-hour jungle trek from the village in the direction of Santa Cruz. This small cave is tucked under a cliff and is accessible only through a tiny opening. The Maya had to rappel a sheer cliff to enter this cave. Sylvano had the opening covered with a large, flat stone to minimize the chances of looting of the pottery hidden inside. There were offerings of several large *ollas* in this tiny cave. Shortly after our visit, the cave was looted, and all the beautiful pottery vessels were stolen. Another nearby cave, this one more easily accessible, is Actun Dzip, a small cave with unique rock art (see figure 2.30). When Sylvano, my friend Tom Pernar, and I hiked to it through the dense jungle, we were confronted by a poisonous, aggressive coral snake hanging in the tree branches. Sylvano was able to kill the snake with his machete.

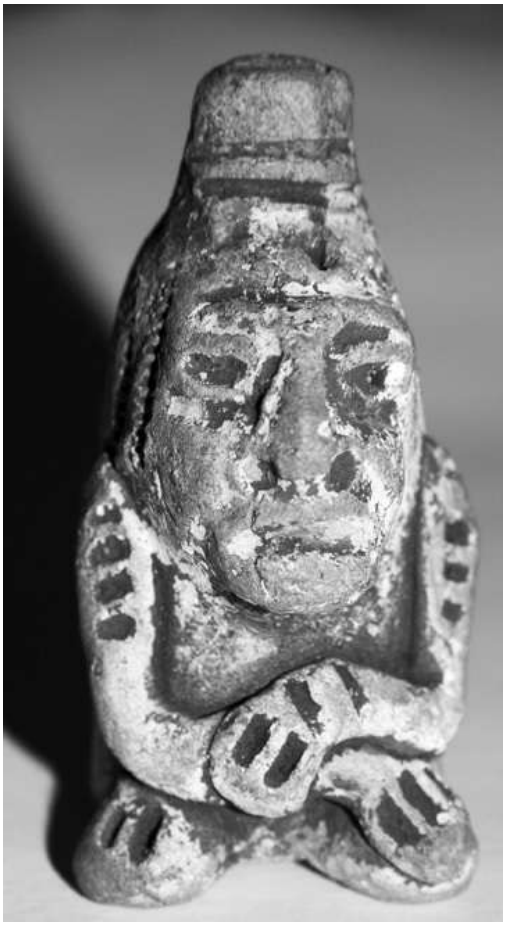

Figure 3.53. Ocarina modeled in the shape of an elite person, found on a ledge at the mouth of Blue Creek Cave, Toledo District, Belize.

In 2008, I was at Blue Creek again. This time the water was much lower, and we could swim into the cave. At the cave entrance were high ledges, where Sylvano found a small ocarina molded in a human shape (figure 3.53). A large stone skull had also been washed down the river by flood waters. At the top of a karst pillar near the opening I noticed a large, carved mask, most likely preclassic, that had Olmecoid features similar to the mask of the Jaguar God of the Underworld in Balam Na Cave, Petén. Taking life jackets and an inner tube, to which I tied my waterproof camera bag, we plunged into the water and swam into complete darkness. We had to cross three low ledges, like little dams, where the water was shallow enough to walk. Finally, in about an hour, we reached a small chamber with a 2.4-meter-high waterfall falling through a hole in the wall (figure 3.54). Although the volume of water was quite small, the noise of the water was deafening. There was no way to go any farther. Although the chamber was relatively small, it was very high and had a barely noticeable vent in the ceiling. This was the same window we'd seen from the outside spewing mist during high water.

Figure 3.54. Subterranean waterfall in Blue Creek Cave, Toledo District, Belize. It stopped our further progress upstream.

It is significant that so-called Canoe Cave (Kayuko Naj Tunich) is located in a high cliff above the cave (Rok' Eb Ha) where the Rio Blanco enters the mountain to form Blue Creek Cave (Hokeb Ha). The remains of a wooden dugout canoe were recently found inside the cave, giving rise to its name (figure 3.55). The cave is just over two kilometers south of the main plaza of the Maya town of Uxbenka. In the preclassic and early classic periods, Uxbenka was allied with distant Tikal. The canoe was originally placed on top of a masonry tomb, which most likely originally held remains of an elite person from Uxbenka. Similar elite tombs have been found in other Belize or Petén caves (figure 2.6). The shape of this ancient boat is quite similar to that of modern canoes still used by the Maya and also corresponds to representations of canoes in Maya iconography (see figure 1.5). One classic period vase, known as the *Ol* Vase, shows an image of one of the Paddler Gods standing in a canoe of the standard shape (figure 3.56), and another of the gods is in a canoe sinking under the red Xibalba waters.

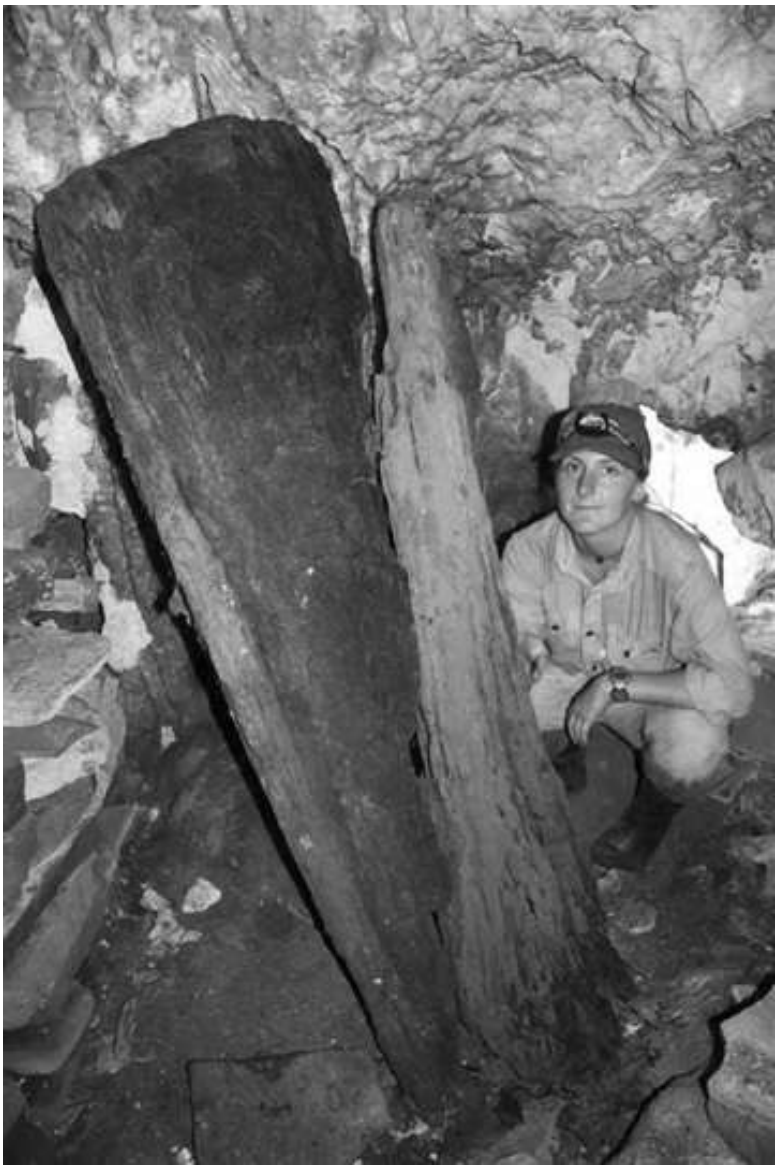

Figure 3.55. Remains of a Maya dugout canoe, found on the top of a masonry structure in Kayuko Naj Tunich Cave in the Toledo District of Belize. This is the first ancient canoe ever discovered in Mesoamerica. Its age is being determined more exactly, but it could date to AD 250. The canoe was reportedly damaged by looters, who sawed it in half before the discovery. Photo courtesy of Jamie Awe.

Figure 3.56. Classic period vase from east central Petén showing two gods, probably the Paddler Twins (see figure 1.5), paddling canoes in the red waters of Xibalba. The scenes are placed in the quatrefoil ol cartouches to emphasize that the scenes are occurring in the underworld. The vase's side, shown here, depicts the Jaguar Paddler in a canoe that is apparently sinking under the Xibalba waters. He has a spotted dog as his companion sitting in the rear of the canoe. Dogs were perhaps considered the guides of souls through Xibalba realms. Photo by Dirk Bakker of an artistic reproduction of the original vase (K 5351) by Patricia Martin Morales, Los Ceibos, Muna, Yucatán, Mexico.

Some pottery (see figure 1.5) and carved-bone scenes portray the journey of the Maize God, Hun-Nal-Ye, or a ruler, in a canoe to and from Xibalba toward an apparently celestial rebirth. The death of a ruler could be depicted metaphorically as a canoe voyage on the waters of Xibalba toward his rebirth to be united with the Maize God. On some ceramic paintings alluding to sacrifice, the shape of the sacrificial bowls resembles that of a canoe (as in, for example, K 688, K 1184, and K 2822), as if the canoe were a vehicle taking the sacrificed to the underworld. This apparent contradiction is readily explainable: in the Maya conception, a sacrifice was a journey toward eventual rebirth. One of the painted Rio Azul tombs (Tomb 12) conveys the

same message. Although the canoe is not actually shown, the level of Xibalba's waters is painted on the tomb walls as a red stripe above the tomb floor. The burial of a fifth-century ruler was located under this level, under the dark red waters, in the upper level of Xibalba (figure 3.57). The small pool in Son of Actun Chapat, Belize, had dark-red, stinking water, apparently from decaying algae. As suggested above, to the Maya this might have appeared as powerful symbolism, a metaphor for the stinking, bloody waters of Xibalba.

Figure 3.57. East wall of the royal fifth-century tomb, Tomb 12, under the main acropolis in Rio Azul, Petén, Guatemala. The tomb was cut into bedrock, and the inside surface is covered by white stucco with black and red painting. Although looters sacked the tomb, discarded bones, and took artifacts, the paintings are well preserved. There are two large glyphs (rendered in red) on each of its four walls denoting the four cardinal points of the Maya quadripartite world (north, south, east, and west). The tomb was modeled on the cosmos, since the alignment of the walls correctly matches actual compass readings. Phrases related to world directions are He of the Sun (east); He of the Darkness (west); He of the Moon (south); and He of the Venus (north). The names of the corner points of the quadrants also appear in the corner of the tomb, probably referring to the solstice points of the horizon or to a mythical association with the sun, Venus, darkness, and the moon. The interred body was placed in a small, carved niche at the center of the tomb, symbolically in the center of the cosmos, and lying in the uppermost tier of the underworld under its red waters. The inscription

on top of east wall, On the day 8 Ben 16 Kayab was buried [at the] Six-Sky-Clouds-Place Na-Tzu-Chan [of] Rio Azul, seems to indicate that this was the burial of a king of Na-Tzu-Chan. His death date was probably March 20, AD 450. The phrase Six-Sky-Clouds-Place probably denotes Tomb 12.

Due to at least one waterfall (see figure 3.54) and the virtual impossibility of portaging canoes in the cave, it is hard to imagine that Blue Creek Cave is navigable in its entire length, but the cave was probably seen as a symbolic pathway to Xibalba. The canoe in Kayuko Naj Tunich contained decayed organic matter, perhaps food for the deceased's journey to the underworld. Thus this symbolic canoe left in the cave as a burial offering had an apparently mythological significance for the Maya as a vehicle for travel on the Xibalba waters, the beginning of a spiritual journey to an eventual rebirth. In that light, other caves in the Maya world with navigable waterways (e.g., the Cuevas Candelaria complex, Barton Creek Cave, and the Cave Branch River Caves) must have held a special awe for them. The Maya swam or used canoes to deposit bodies in cenotes in Yucatán. Did they also use canoes to carry their noble dead on subterranean streams on the way to Xibalba?

Beyond the Maya Mountains

Chiquibul Caves, Cayo District, May 2008

The Chiquibul Cave system in western Belize is the longest cave system in Central America, reaching a length of about one hundred kilometers. The cave system is formed by the Chiquibul River, which springs from the Maya Mountains and flows west toward Guatemala. After passing under a huge natural bridge, the river enters an enormous underground labyrinth, which consists of numerous sinkholes and four major caves: Kabal, Tunkul, Cebada, and Xibalba. In the dry season the large caves may be completely dry as the river flows through another channel below, whereas in the rainy season some of these caves get flooded when the sinkholes cannot swallow all the water.

The caves are often connected by deep sumps; some of these connections have been proven only recently, and others are still hypothetical. In Guatemala, the river enters the last cave of the system, Xibalba, at its Zactun Entrance before finally reaching the surface to join the Rio Mopan, one of the sources of the Belize River, which flows to the Caribbean Sea. The whole cave system is hidden in deep jungle, penetrated only by a handful of almost

impassable logging roads. The area is occasionally visited by *xaterros* (harvesters of palm fronds) from neighboring Guatemala, who illegally collect palm fronds and sometimes loot the ruins and caves. The Belizian Defense Force infrequently patrols the area of this wild frontier. The ancient Maya lived in this area in the classic period, and lost Maya cities surely exist hidden deep in the jungle and awaiting discovery. The closest known Maya city to this region is Caracol, about twenty kilometers north.

The goal of the Xibalba Mapping and Exploratory Team expedition to the Chiquibul Caves in May 2008, in which I participated, was to explore in detail one of the largest caves of the system, Actun Kabal, including its side passages and adjoining sinkholes, and to conduct a detailed inventory of its archaeological resources. I was fortunate to join three other American participants, expedition leader David Larson, Brian Piese, and Donald Smith. Thirteen Belizian jungle guides also joined us on the trip, including my good friend Marcos Cucul, with whom I had explored several caves in Belize just a month before.

On a hot May morning the expedition assembled at Maya Mountain Lodge in Santa Helena in western Belize. There were nine of us in this group, plus three drivers for our four-wheel-drive vehicles. One driver, Joe Wolf, was to return to the lodge to man the radio station, and he would have daily contact with us in the cave. In case of an emergency, he would contact a jungle rescue unit, which in turn would dispatch a British Army rescue helicopter for the mission. As I learned later, this emergency system was highly hypothetical because the only helipad was at another entrance to Actun Kabal (Actun Katab), where we camped. This entrance was reachable only via a rugged cave passage—quite a difficult feat with a potentially immobilized person.

We drove about six hours over ever-worsening jungle tracks, finally cutting through jungle with machetes and a chain saw for the last kilometer of road. In 100 degree heat we shouldered our packs and struggled down to the Chiquibul River. We carried a heavy load, including water, camping supplies, climbing gear, and large lighting equipment for photography. Fortunately, it was a short hike. We forded a river and established camp. The next morning we redistributed our loads and hiked an overgrown logging road uphill that then joined an *xaterro* trail marked by horses' hoofprints. Soon we encountered several Maya terraces hidden in deep jungle. Then came the hard

part. We left the main trail and followed a barely noticeable track to the edge of a steep, thickly forested sinkhole. We descended the steep slope here, using a hand line strung by an advance party led by Marcos. The sinkhole was very deep, and it was hard to imagine how we were going to climb back out upon our return. After awhile we finally spotted the large opening of Actun Kabal, our goal.

The cave opening measured 80 meters across and led to Chiquibul Chamber, measuring 150 meters wide, 250 meters long, and 45 meters high. At the time of its discovery in the 1980s, this was the fifth-largest known cave room in the world. We established a camp on the sloping ledges near the entrance; in the twilight area of the cave, we had daylight for a good part of the day (figure 3.58). The whole dome floor had been artificially terraced by the Maya; remains of the retaining walls and platforms were readily visible. The chamber had access to the only permanent water source in this part of the cave, a small spring-fed lake, which was perhaps a sacred place and also a source of utilitarian water in time of drought. This camp was our home for the next four days as we explored the caves and sinkholes.

Our first trip led through the back wall of the cave, where we located a small opening in a huge breakdown at the other end of our underground lake. Hard scrambling and climbing over innumerable rimstone dams finally led us to the top of a large hill. From there we descended to large Sand Passage, a giant tunnel, approximately one hundred meters across and perhaps more than one kilometer long (figure 3.59). This passage is the course of the Chiquibul River in the rainy season, when the sinks overflow.

The next day we explored the part of Actun Kabal close to the entrance. A large, conspicuous column on a platform on the right side of the entrance indicated an entrance to a small corridor behind it. The sloping, sometimes tight corridor ended in a couple of alcoves containing six ancient *ollas*, at least two of them perfectly preserved and one painted orange. As *ollas* were often used for collecting *suhuy ha*', sacred water of underworld origin dripping from stalactites, it's odd that they were placed in a perfectly dry area of the cave with no signs of active speleothems. Perhaps conditions changed over time, or the *ollas* were originally used for storing alcoholic beverages for ritual feasts. A previous expedition had found a painted plate in the same cave, indicating the cave's elite use.

Figure 3.58. Our camp inside Chiquibul Chamber of Actun Kabal. Mario Perez lit the back wall of the cave with a large spotlight. Chiquibul National Forest, western Belize.

The following morning, five of us started to hike to the Sinks of Chiquibul to climb to the Ledge of Offerings, high above the sinks, which are called Chen Zuhuy (Well of the Virgins). Chen Zuhuy at its bottom is connected with Actun Kabal via Actun Xux (Wasp Cave), where the underground Chiquibul River flows. At least one earlier expedition was able to penetrate through the underground river channel to Chen Zuhuy and to climb out to daylight. Because of a near-fatal accident there, this section of river was nicknamed the River of Death.

We used a different route to reach Chen Zuhuy, which our advance party had at least partially rigged the previous day. We struggled over huge boulders at the bottom of the sinkhole out of Actun Kabal and then accomplished a relatively short vertical climb to its upper edge. The climb was not too technical, with plenty of strong trees to use as handholds. Then we skirted the sinkhole rim and traversed to the top of the next sinkhole through dense jungle. We put on harnesses here and started a descent to the bottom of the Sinks of Chiquibul, alternatively using a cable ladder or hand

lines, or just free climbing down through several chimneys to reach the cave entrance.

Figure 3.59. The enormous Sand Passage of Actun Kabal. It dwarfs persons in the cave. Chiquibul National Forest, western Belize. Photo courtesy of David Larson.

The view was breathtaking. Down below were two dark openings, separated by a natural bridge: Chen Zuhuy. The Chiquibul River, the River of Death, was running deep in the abyss. We had to descend over ledges full of debris to the natural bridge, with no way of securing ourselves with a rope. Next came a free climb to the ledges above the sinks. We were inside a twilight cave high above the sinks; the ground was covered by huge logs, testifying to incredible water levels during the hurricane season. This was no place to be when the big rains of summer came. On the higher portion of the slopes, the Maya had built ritual terraces, supported by retaining walls. The ground was littered with shards of broken *ollas*. In addition we counted at least a dozen *metates*, together with several large *manos*. All these artifacts, some weighing more than fifty kilograms, were carried by the Maya over the precarious route that we had just taken.

Figure 3.60. Don Smith and a giant, inverted olla completely coated with calcite deposit on the lower ledge of the Ledges of Offerings. Chiquibul National Forest, western Belize.

We reached the dark area of the cave and ascended a steep ledge 10–12 meters high, using a rope and ascenders. Then we negotiated a steep corridor to stand on an artificially leveled platform with three big *ollas*. The biggest one stood on a platform perfectly leveled, and for some reason was inverted (figure 3.60). Above us was yet another ledge, about the same height and bit easier to climb. On a very small platform at its top stood two *ollas*, the rear one with a meter-high stalagmite growing out of it (figure 3.61). This vessel was placed to collect *suhuy ha*', and over the last millennium or more the dripping, calciferous water had formed the speleothem.

Figure 3.61. Group of two vessels on the uppermost ledge of the Ledge of the Offerings, one with a growing stalagmite. Chiquibul National Forest, western Belize.

We carefully descended to the edge of Chen Zuhuy, trying not to look too much into dark abyss of the River of Death below. Then we climbed from the sinkhole up to the jungle. As often was the case, going up turned out to be much easier than going down. As we hiked through the jungle toward our cave base-camp, Eloy, a great cat-like climber, turned to me and said,

> I am glad that you made it. You are old and one never knows what could happen in the cave. I like to go to the caves, but feel a bit uneasy inside. You know, there is the Owner of the Cave and other spirits, they don't want us to be there for too long. Maybe they don't want us to be there at all. Lots of things could happen to us there. So I am glad to be back in the sunlight.

Back in our camp, now in darkness, we reverted to our daily evening chores, washing in the lake, cooking freeze-dried food, and taking care of our bites from all kind of insects, including ticks. The ticks were very small and

very hard to get out of the flesh, especially from the less-accessible parts of our bodies. So we sat there like monkeys on a branch, helping each other to get rid of these nasty creatures with tweezers after rubbing the bites with an ointment. Great fun for the evening, but sometimes a bit painful.

The last exploratory trip in Actun Kabal led us again to Sand Passage and beyond. As we traversed the great tunnel of Sand Passage, we saw a distant light at its end: Katob Entrance. We finally came out through a giant opening to a dry river bed of big boulders and into the full sunlight. On both sides of the entrance were retaining walls and platforms. We climbed up to the highest platform on the right side of the opening, just under the cave ceiling. One platform had been built by filling cracks with stones, and a ruined stairway led to another level. There stood a boulder with a carved niche, evidently an altar for housing an idol (see figure 2.32), or conducting a ritual burning of offerings.

The lower platform had a low crawl passage, originally walled in with large stones. The stones had been partly removed, presumably by looters, perhaps very recently. The short passage led to a large room filled with broken *ollas*. An interconnected room again had a large number of pottery shards in addition to a tripod plate, broken in half. The cave passages continued a long way, but there was less pottery past these two rooms. I wondered why the Maya concealed the side cave entrance. Perhaps there had been originally something important hidden there, and only the looters, who preceded us, would know.

Our last task was to explore the Lultun Chamber of the Sea Cave, a cave branching off Sand Passage. Brian, Don, and I started to hike to this cave, while the rest of our group cleared the helicopter landing pad near Katob Entrance. Going through the tunnel-like cave was unpleasant; we were constantly slipping through deep mud until we reached a large room where the cave branched. We located the passage continuing to Lultun Chamber near the top of the dome. Finally, we were standing in a fairy-tale room with incredible “splattered” speleothem cones that sprouted petals of calcite glistening in the lights of our headlamps (figure 3.62). Next to the stalagmites were three beautiful *ollas*, one just barely cracked, leaning on the cave floor. A second one, seemingly intact, was embedded high in the cliff, and a third broken one rested under the overhang. What a wonderful sight at the end of our adventure, making our efforts all the more worthwhile.

Figure 3.62 Splattered stalagmite cone in Lultun Chamber of Sea Cave, part of Actun Kabal. Chiquibul National Forest, western Belize.

Conclusion

My journeys into the Maya underworld were often thrilling and frequently hard, but always rewarding. I often find myself reminiscing about the biggest thrills of my excursions, such as when guides saved me twice from attack by venomous snakes, or the excitement of rappelling into the darkness of Midnight Terror Cave. Our attempt to enter Actun Yaxteel Ahaw through a flooded creek, although unsuccessful, was also not short of high adventure.

There have been moments in my journeys when I felt fear coursing through my veins. My previous pursuits, whitewater and ocean kayaking, did not provide immunity from fear of the unknown realm I was about to enter. I am not claustrophobic, but I did get scared when I got stuck in a cave directly under the town of Oxkutzcab in Yucatán. I was searching for a painted panel described in a book by Andrea Stone, *Images from the Underworld*. A local taxi driver assured me that a cave with its entrance on the hilltop near the church Ermita Virgen de Pilar must be the right one. I made a big mistake and went to the cave alone. My only emergency plan was that I asked the driver to call my wife in Colorado if I didn't return by 2 p.m. After wandering in the cave for some time, I thought that I had found the narrow corridor where the painting should have been. But the corridor became too tight for my frame, and I got stuck when I tried to push forward. I took me awhile to liberate myself; meanwhile, I spent some anxious, sweaty moments alone in the dark and unable to move anywhere. And I did not find any paintings; even today I still don't know if I was in the right cave. Perhaps not, but the taxi driver meant well.

Another incident occurred in Skeleton Head Cave in Belize. I did not know that my guide to the cave, F. B., was a former looter. Once we were in the depths of the cave, he started to negotiate with me about paying him extra money above what had been agreed upon, and tried to sell me some artifacts from his "museum." My flat refusal did not really help our friendship. I thought then that he had abandoned me in the cave after he climbed out with my backpack while I was stuck at the bottom of the shaft. I was a bit

concerned. Fortunately my friend and cotraveler Tom knew I'd gone with F. B., and he could have contacted my friend Ted, a British jungle guide, who would then have found me, since Ted knew F. B. But I was still much better off that F. B. did not leave me there that night; spending the night with skeletons and bats in a wet hole would not have been terribly pleasant. Since that experience, I've purchased the necessary climbing equipment and started to practice rope work in a gym. Perhaps I am also more careful about choosing the right guide.

Through my cave journeys I learned much about the Maya. Every cave was for me a discovery, although I was sometimes seeing things that archaeologists knew well. The biggest reward for me was the expedition into Actun Chapat in 2008 with two friends from the Xibalba Mapping and Exploratory Team, Brian Piese and Don Smith, and my friend Marcos Cucul, a Maya guide. The fact that we ventured into an area that has not been visited since the Maya classic period was exciting. No matter that we could not breathe very well, due to a lack of oxygen. The formations in the cave were incredible; I had never seen anything similar before. And the discovery of human sacrifices of apparently elite persons was more than I could have expected. It was completely new. And a few moments later, we stumbled across a beautiful chert knife, looking as new as though it had just been made. This was most likely an instrument used for decapitation rituals. My being where all these events and rituals took place more than a thousand years ago, events and rituals about which I had only read, almost felt surreal.

The 2008 expedition to Chiquibul Caves with the Xibalba Mapping and Exploratory Team was also extraordinary. Even the travel to this remote, virgin jungle area of Belize was an adventure in itself. I am not sure if we discovered anything very new archaeologically, but the impression made by the immense underground caverns was beyond any description. My exploration of the vast caverns, and the finding of artifacts that had been untouched for over a thousand years—all this was overwhelming.

But every finding in the cave posed new questions, and my answers are just speculations. For example, I have been wondering about the burned and cut bones in several caves, which seemed to be indications of strange rituals most likely related to ancient myths. Perhaps bones, as the most durable parts of the body, could be used to generate rebirth. This is one of the basic shamanistic beliefs. Or perhaps this was the destruction of the most durable

parts of the bodies of sacrificed enemies? It is known that cutting and burning bones from surface tombs was an established ritual in some cities (Toniná, Piedras Negras). In many cases I observed separate human skulls in caves. Perhaps there existed an unknown ritual related to decapitation sacrifices? The possibility that modern looters could have misplaced the bones, playing macabre games in these caves, cannot be excluded. For instance, we identified willful destruction of human remains in Cueva Aguacata in Guatemala. We also observed human lower jaws separated from the rest of their skeletons. Since surgical removal of mandibles from living victims does not leave any cuts on the bone itself, it is difficult to state unequivocally that these victims died by the removal of the lower jaw (a sacrifice to honor the God of Number Zero, or Patron of the Month Pax). And it is known that the mandible was prized by the Maya as a war trophy. I have also seen in several caves in Belize child skeletons left in pits and accompanied by adult femurs. Were these femurs bone relics or did they have some relationship to the victims? The significance of these phenomena, if proved to be more general, is also unknown.

Another unresolved question is the locations used for sacrificial rituals and final depositions of post-cranial bodies (Skeleton Head and Calcehtok caves). Victims may have been forced to negotiate very difficult passages to extremely constricted places and then dispatched close to a source of water in propitiation of a rain deity such as Chaak. I would expect that most likely the drugging of victims would be necessary for such an arduous “voluntary trip.” A second possibility may be that the victims were decapitated elsewhere and that Maya ritualists dragged the headless bodies to the site of final deposition, the active springs. I have negotiated some of these tight passages and can testify that it was difficult, and I was dragging just my backpack.

Also, in several caves I observed that the Maya executed paintings on the high ceilings of the caves, or placed, for example, large *ollas* on or in very high and inaccessible ledges and niches. Did the Maya build high scaffoldings or ladders? How did they manage to bring tree trunks through constricted passages such as in Calcehtok Cave? How did they manage to presumably force large numbers of prospective victims to the depths of Midnight Terror Cave?

In many caves I have observed carved masks, the “scary” faces. These may have been the likeness of spirits, guardians, or owners of the cave. All these

masks were placed in twilight areas of the caves and not in complete darkness. This is another mystery, for which I have no explanation.

As noted earlier, Maya scribes came most likely from elite families and attained sacred status for their near superhuman abilities. Only a very few preserved cave paintings compare in artistic quality to Maya vase paintings, and they were probably painted by these trained scribes. Some of these paintings are in two caves: Naj Tunich Cave in Petén, Guatemala; and Cueva de Jolja in Mexican Chiapas. It is interesting to compare two panels from these caves, both bearing on celebration of the *k'atun* time period. In Naj Tunich, drawing 11 portrays what might be a priest holding the severed head of a captive, and in Cueva de Jolja, the group 2 panel shows two black-painted figures, one of them holding a torch. So here are two different rituals involved in the celebration of a period ending, one of them involving the decapitation ritual. Both paintings are separated by distance and by time (the Naj Tunich painting dates to about AD 779 and the Cueva de Jolja mural dates to AD 297). Had the Maya perception of the ritual changed in about five hundred years?

During all my travels in Maya country, one particular incident had a rather profound impact on my thinking about the modern Maya. While exploring Actun Yaxteel Ahaw (see chapter 3), my Maya guide Juan Carlos and I were sitting outside the cave and listening to rather strange noises coming from within. The sounds seemed like faint human voices coming from the depths of the cave. Juan Carlos, evidently in some sort of awe, told me that these were the voices of his ancestors calling us from Xibalba. I felt quite uneasy. I would not say that I believe in spirits, but his assertion struck me: here we were on the threshold of a mysterious, impenetrable cave in the middle of a gloomy jungle, and we were hearing what sounded like human voices coming from this forbidden cave. It was easy to believe that there was something supernatural occurring here and to understand how weird sounds or echoes from a mysterious, dark environment could be taken by the ancient Maya as messages from the underworld. Juan Carlos is a thoroughly modern man, but he evidently still believes the myths of his ancestors. I recall my friend Ted, a former British commando and also an experienced jungle guide of San Ignacio in Belize, warning me by saying there was something strange and unexplained about this cave.

Evidently some caves were more sacred than others. A water source inside

the cave, unusual geological formations, or the remoteness of the cave may have been some of the factors that determined sanctity of the cave. Perhaps future research will give us more answers. There are thousands of caves and cenotes in the Maya karst area. We may assume that a large number of them were ritually used by the Maya, but only a fraction of these caves have been seriously investigated by archaeologists. Much about the caves still remains, as John Lloyd Stephens said, mystery, dark, impenetrable mystery.

This might be the end of my journeys into Xibalba, the end of crawling in mud, scraping over sharp rocks, suffering all kinds of insect bites, heat, and thirst, and struggling through the jungle. But there are still countless caves hidden in the jungle to explore, and adventure still beckons.

Glossary

Adoratorio: shrine
Ahaw: Maya ruler (king)
Ak'bal: sign for darkness, often used to symbolize the underworld
Alcalde: mayor
Atotob: funeral pyramid where ancestors were buried
B'aktun: four-hundred-year period in the Maya Long Count Calendar, equal to 144,000 days
Balché: alcoholic drink made by fermentation of bark from the balché tree
Barranca: steep-sided ravine
Brujo: Maya priest able to communicate with spirits
Cacique: pre-Columbian chief or leader of a tribe
Camina de piedra: rocky road
Ceiba: the silk-cotton tree, a sacred tree of the Maya
Cenote: deep natural well carved in limestone bedrock
Ch'e'en: glyphic symbol for a cave or the spring in a cave
Chert: hard, compact silica or microcrystalline quartz
Chultun: underground water-storage chamber
Codex: in this discussion, a Maya book of folded paper made from the bark of the fig tree
Copal: a hard, lustrous resin from tropical trees (genus *Copaifera*) burned by the Maya as incense during religious ceremonies
Cosmic Hearth: set up by the gods in the sky, in the constellation of Orion, so the first fire could be started
Cosmic Turtle, or Turtle of Creation: probably a representative of the Earth. The Maize God was reborn from a crack in the Cosmic Turtle carapace.
Cosmology: study of the physical universe
Cueva (pl. *cuevas*): cave
Earth (*Witz*) Monster: Maya symbol of the living mountain. The Earth (*Witz*) Monster was often placed on temples to transform them into sacred, living mountains. The mouth of the monster often gapes open as the entry into the

mountain or cave. *Kawak* signs in the shape of grapes, also often be associated with the Earth Monster, signify the essence of stone.

Flowstone: deposit of layered calcium carbonate that forms when water flows or drips along the walls or floor of a cave

Geopiety: reverence for the earth and its geological features

Glyphs: pictographic scripts

Hacha: a flat, carved-stone object, usually in the shape of a human head, connected with a ball game

Haltun: a trough carved out of limestone for collecting *suhuy ha*' (holy, or virgin, water)

Hieroglyphs: pictures or symbols used as writing

H-men (pl. *h-menob*): Maya village priest and doctor; shaman

Ka'an: sky

K'an cross: Maya creation cross symbol (also signifies yellow or holy)

Kan: snake

Karst: region made up of porous limestone and characterized by sinkholes, caves, and underground streams

K'atun: a twenty-year period in the Maya Long Count Calendar, equal to 7,200 days

Kawak Monster: see Earth (*Witz*) Monster

Kawak sign: signifies the essence of stone and designates the Earth (*Witz*), or *Kawak* Monster. The sign consists of a triangular arrangement of disks combined with dotted semicircles.

Logograph: picture symbol in Maya writing for either a word or a part of a word

Mano: Maya version of a pestle, made from stone and used with a *metate*

Mennonites: members of an evangelical sect opposing military service and favoring plain living. There are many Mennonite communities in Central America.

Metate: Maya version of a mortar, made from stone and used for the grinding of corn

Milpa: maize field, usually obtained by slash and burn agricultural practices

Muk or *muknal*: burial

Ocarina: a simple wind instrument

Ol portal: Maya name of the quatrefoil portal into the underworld. It was also a name for the crack in the Cosmic Turtle carapace.

Olla: a pot or jar

Popol Vuh: sacred creation text of K'iche' Maya, rewritten in the sixteenth century on the basis of ancient oral traditions. The Maya "Bible."

Puuc: an architectural style of Puuc Hills, Yucatán, characterized by buildings with columns and arches and decorated with mosaic friezes

Quatrefoil: a flower or leaf with four petals. It portrayed the sacred aperture (*ol*) or entrance to the underworld.

Rimstone: a deposit that forms when water flows over the rim of a dam

Sak be (pl. *sakbe'ob*): stucco-paved Maya procession road

Selva: tropical forest, especially in Yucatán

Shaman: ritual specialist who can communicate with spirits and gods

Slip: liquid clay used for decorating pottery

Speleothem: karst formation such as a stalactite, stalagmite, or flowstone

Stalactite: icicle-like hanging of calcium-carbonate deposits in a cave

Stalagmite: calcium-carbonate deposit that resembles an upside-down icicle, formed on the floor of a cave

Stela (pl. stelae): upright stone slab, usually engraved with inscriptions or designs

Suhuy ha': sacred water, usually originating from and collected in caves

Tlaloc: Mexicanized Maya god of rain, thunder, and storms

Wakah-Chan or *Wakah Kan*: the World Tree, central axis of the world. It symbolized the Milky Way in its north-south orientation. The Maya king personified the World Tree in his flesh.

Way (pl. *wayob*), also *Nahual* or *Nawal*: an animal and spirit companion that shared souls with human beings

Witz (pl. *witzob*): mountain

Witz Mountain: the Mountain of Sustenance, or First True Mountain, it is a symbol of a living mountain with distinctive *kawak* signs. The Maya constructed temples as personifications of *Witz Mountain* (e.g., at Copan, Toniná). Corn seeds came from a cave inside this mountain.

Xibalba: K'iche' Maya word for the underworld

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Chapter 1 The Maya and Their World

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Notes

1. Throughout the text, colonial orthography is used for place and proper names, and new orthography is used for nouns.

2. *Xibalba* is the word for the Maya underworld in K'iche' Maya, a Highland tribe's language. In Yucatec Mayan language, the world for the underworld was *Metnal*. Throughout this text, I use the K'iche' expression *Xibalba*.

3. Ball courts, which are found in every ancient Maya city, were portals to the underworld. The drama of the Hero Twins' mythical battle with the Lords of Xibalba was regularly reenacted during the ball game. For Maya, the ball game was a religious drama played with gods: a confrontation with death, evil disease, and eventual resurrection. The *I* shape of the ball court with its sloping sides resembles the profile of a reptilian monster, a portal of Xibalba, ready to swallow the game players and convey them to the underworld as the ball game climaxes in sacrifices.

4. This substitution sacrifice, in which the human victim was replaced by a chicken, for example, became known as the *k'ex* sacrifice.

5. To the Maya, the image of the turtle, from which the Maize God arose in his resurrection in the sky, is in the constellation of Orion. Three of the stars in Orion are Alnitak, Saiph, and Rigel, and these stars are the three hearthstones, with the Maize God placed in the center of the universe so the first fire of the universe could be started. This is the locus, where the creation happened. Every Maya kitchen has a fireplace with three hearthstones (*oxib' xk'ub'*) arranged in the form of a triangle.

6. The Maya also refer to a corn-planting hole as a cave. The motion of the planting stick creates a quatrefoil shape. The quatrefoil shape of the sacred earth aperture may be a reference to this act.

7. The oldest known Maya representation of the *ol* portal appears in the recently discovered San Bartolo mural in northern Petén, Guatemala. It was painted about 300–100 BC on the western side of the small temple. The mural seems to portray the divine right of a yet unknown king to rule, that right given to him by the gods. Three of these gods, the Rain God, the Growing Maize God, and the God of Surface Waters, are depicted inside the quatrefoil opening in the turtle-shaped earth, which is the *ol* portal, or sacred aperture. It has been argued that the San Bartolo mural shows Olmec influence, possibly an Olmec crowning a Maya king.

8. About one thousand years ago, the Chichimecs in Central Mexico excavated seven small caves in the center of their town, Acatzingo Viejo. These caves represented the seven mythical caverns from which the Chichimec's ancestors were believed to have first emerged.

9. Victims of sacrifices, including infants, were deposited at the foot of the Naj Tunich balcony (see figure 2.9). Large, unadorned limestone stelae stand there. The shaft leading down from the lower level contains six rooms with child sacrifices (a total of four small children and four juveniles). There were three unhealed holes in one of the skulls of the children; a similar finding was reported from Eduardo Quiroz Cave in Belize. A total of twenty skeletons were found in the cave entrance hall, probably all of them sacrifices. I noticed the presence of adult femurs among the child bones (Actun Tunichil Muknal, figure 2.8) in Crystal Cave. The reason for such a custom, if it proves general, is unexplained.

10. The only existing photograph of this unique idol, taken by I. Graham in 1997 (Stuart and Stuart, 1977).

11. The *k'an* cross (a symbol often used in Mayan art) marks the spot of rebirth and creation, Na-Ho-

Chen; in the sky, it is the intersection of the ecliptic with the Milky Way. *K'an* also means "yellow" or "precious." The homonym *kan* means "snake."

12. The strong influence of Teotihuacan is seen in many Maya cities. Teotihuacanos may have been attracted to the Gruta de Chac for spiritual reasons as well as for their water needs. They may have seen Gruta de Chac as a sacred place analogous to the cavern under the Pyramid of the Sun in Teotihuacan itself. The design of enigmatic Chac jars, unlike any pottery in the Maya area, may have roots in central Mexican influence.

13. There were frequent contacts between Teotihuacan in central Mexico and the Maya. These contacts ranged from trade relationships and ideological exchange to outright conquest. (A Teotihuacan expedition evidently took over Tikal in 379 and installed the new dynasty.) The recent discovery of an artificial ritual cave in the preclassic period city of Nakbé as well as findings of preclassic cultural material in various caves in the Maya area seem to indicate the existence of a Maya cave cult long before contacts with Teotihuacan.

14. The triadic pyramid, the most distinctive preclassic architectural innovation, is composed of a central structure flanked by two smaller structures on a single basal platform. The largest documented triadic pyramid is El Tigre in the preclassic city of El Mirador in northern Petén, Guatemala.

15. The Maya reentered the tombs of ancestors and retrieved their bones to be later cut and used as relics. Tomb reentry had profound meanings, suggesting a temporary entering of the underworld—a spirit-place full of power—that was denied living human beings. Stela H in Copan refers to the ritual of "cutting of ancestors' bones." The myth that the Maize God was resurrected by the digging up of his bones and their use to generate his rebirth may have served as the archetype for a ritual with cut relic bones. At least one tomb in Toniná (Chiapas) was found to contain crushed and burned bones, evidently a product of such a ritual. Panel 3 from Piedras Negras showing Ruler 4 also records the *el naah umukil* (house burning) ritual of Ruler 4's burial by his descendant Ruler 7. This certainly refers to bone burning because burned bones were found in Ruler 4's tomb. Such rituals were perhaps meant to replay ancient myths, such as sacrifice by burning, for which prisoners were adorned as the Jaguar God of the Underworld. This use resonates with an ancient myth in which the Jaguar God of the Underworld (sometimes also called Bearded Jaguar God), or his avatar, Baby Jaguar, was sacrificed in Xibalba by immolation at the hands of another young god, Kan-Te-Ahaw. Finding cut and burned bones in a cave may indicate that these ancient myths were reenacted in cave ceremonies.

About the Author

Dr. Stanislav Chládek was born in Brno and lived in Hrotovice, Moravia, in former Czechoslovakia. He studied at the Technical University in Prague and received Ph.D. in bio-organic chemistry at the Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Science in Prague (under Professor F. Šorm). He immigrated to the United States in 1969 and worked at several U.S. academic institutions as a research scientist and professor of biochemistry. During his scientific carrier he published about one hundred original papers in organic chemistry and biochemistry.

He competed extensively in whitewater canoeing as a member of the Czech National Team. With his wife Ema he won the 1965 World Championship in wild water. His love for whitewater and adventure finally prevailed and he abandoned his academic carrier in 1991 (too late, it should have been done much sooner!) to paddle and travel around the world full time. In the 1980s he began sea kayaking and has participated in many sea kayaking expeditions, including trips to Great Britain, U.S. coasts, Antarctica, and the Aleutian Islands.

He has been always interested in history and archeology and he says that he actually came to study chemistry mostly because he liked to blow things up. During his sea kayak trips around the British Isles and Ireland he studied Celtic history and mythology. He is now actively involved in historical research and the archeological survey of Aleutian Islands from ocean kayaks.

Since 2000 he has been traveling to Central America to explore the Maya cities and their ritual caves lost in deep jungle. He lives alternatively in Michigan, Colorado, or Prague and often writes the articles about his adventures for U.S. and Czech magazines. This is his first book about the Maya ritual caves.